Those Wonderful Industrial Pretreatment Workshops!

by Victor M. Hernandez, P.E.
Hillsborough County Water Department

Have you ever gotten involved in a project where you initially knew little of the subject (such as overhauling your automatic transmission, rice farming, or developing/implementing an industrial pretreatment program) and, while you developed your knowledge and skills, thought how nice it would be to informally meet with others of like circumstance to share ideas, network, and gather strength in knowing you were not alone? Well, that is exactly how the Industrial Pretreatment Workshops came to be in the State of Florida. For years, many pretreatment folks would think and talk of how great it would be to meet with pretreatment folks in other areas, to compare notes and discuss issues. Then one day, Joseph W. Ortelona, (at the time, Pretreatment Officer for the City of Fort Myers) grabbed the bull by the horns and sent out the first invite to an "Informal Pretreatment Get Together." Eight pretreatment coordinators responded to that premier workshop, held on

(Please see Al’s, page 3)

(Please see Workshops, page 2)
Workshops (Continued from page 1)

September 4, 1992, at the City of Fort Myers. The round table discussions proved such a success that a second workshop was planned, and Manatee County volunteered its venue. The second workshop, held on January 22, 1993, drew twenty eight representatives, all of whom were excited to continue a semi-annual meet. The City of Lakeland volunteered to hold the third workshop on August 23, 1993, where sixty-three representatives enjoyed the experience. The fourth workshop, voluntarily hosted by Hillsborough County on January 25, 1994, experienced ninety two representatives and the fervor from the growing number of participants to continue the gatherings. The City of St. Petersburg voluntarily hosted the fifth workshop which accommodated one hundred fifteen participants on August 31, 1994. The sixth workshop, held by Orange County drew well over one hundred participants on January 20, 1995, as did the seventh workshop, held by the City of Orlando on September 8, 1995, and the eighth workshop, hosted by Orange County on April 26, 1996. The rapid growth in participation and continued support for these workshops signifies that the pretreatment folks find them extremely worthwhile.

For the ninth workshop, to be held at the City of Titusville, on October 11, 1996, a unique and exciting experimental agenda will be used for the first time, to better accommodate the large number of participants and promote more round table discussions. The agenda has everyone meeting for the first hour to listen to the "Pretreatment News." The News will include pretreatment updates from knowledgeable and reputable sources, such as AMSA, FWPCOA, FWEA, DEP, and EPA. If you have News and are reputable (ha, ha!), please bring it to share. After the News, the participants will break out into small round table discussion groups of varying topics (about 10 - 15 people per group) for the next two hours. The topics will be chosen by majority rule of those present, and there will be one group (no matter how small it may be) dedicated to discussing the development of the pretreatment program for the new folks. Each discussion group will have a participating moderator to take notes of innovative findings from the group, and keep the subject flowing if required. All participants are free to roam around, casino style, and sit in with the group of their choice for as long as they wish. If one subject group begins to get too large for reasonable discussion (about 20 - 30 people) then it can split up into two discussion groups, each discussing the same subject and having its own moderator. If a new subject stems out of an existing group, and there are enough participants wishing to discuss it, then a new group can be formed with a new moderator, and the original group can continue the existing subject. The idea is to get meaningful discussions from all participants in small discussion groups. We will have to monitor ourselves from reforming into one large unmanageable crowd and assure that each discussion group has a moderator to report back the findings to all participants. After we've exhausted our round table discussions (about two hours) we will break for lunch. When we return from lunch, we will all come together as one to listen to the moderator reports of our morning discussions. Moderator report summaries will be limited to 10 minutes each, unless the crowd wishes to extend the time.

Remember, above all, this is YOUR meeting. I look forward to seeing you there and sharing our experiences. And Joe, thanks for giving us a boot start!

Heavy When Wet... and other Sludge News! by John Coates

Stop the presses... The sludge survey results are in! We have received responses from just over 75% of the approved pretreatment programs in Florida on our questionnaire related to industrial wastewater pretreatment sludges being generated by industrial users in Florida. The results are quite interesting and we greatly appreciate each and everyone’s time in completing and forwarding the surveys to us. While the results of the survey are discussed below, a picture is worth a thousand words (go ahead and sneak a peak at the graphics later in this article!).

So, what did the respondents say? Well, first of all, let’s put things in perspective. The survey results covered 36 pretreatment programs and 469 permitted industrial users in Florida. Of these industrial users, the programs indicated that about 40 percent of the permitted industrial users generate sludge that is disposed of in some manner.

The survey also indicated that the majority of respondents (by a slim margin) thought that the Department should address pretreatment sludges more thoroughly in its rules.

(See Sludge, page 7)
course I understood some of the pessimism, because many new regulations had been dumped on both the cities and the industries. However, I am pleased to report that attitudes have changed considerably with the addition of knowledge and experience.

At one time the wastewater treatment plant operators complained that they had operational problems because industry “ABC” dumped some bad wastes and they could do nothing about it. This is no longer a complaint, since the operators now know that they can do something about it with the help of State and EPA personnel, if needed.

Indeed, the pretreatment program has come a long way and attitudes have changed considerably. What was once viewed by some as nuisance regulations have now become the source of opportunity to solve current and potential problems of industrial wastewaters. Not only have cities and counties found the pretreatment programs necessary for preventing problems, but the industries have found these provide a “level playing field” for equitable treatment.

**FLORIDA STATUS**

The first local pretreatment programs were approved in Florida in 1983. These ranged from small cities that had to start with the basics to Miami which already had in place much of the required elements of the program. The delegation of the NPDES and pretreatment programs to Florida on May 1, 1995, was a major milestone, resulting from massive efforts on the part of the Florida Department of Environmental Protection (FDEP).

After one year of operation by FDEP, the overall program was evaluated by EPA. Significant accomplishments have been made by FDEP in both quantity and quality of activities. Bob Heilman and his staff have conducted audits or inspections on all local programs. Their comments on both these and on the annual reports indicate that, for the most part, the local programs did not have any major problems, but only needed some “fine tuning.”

The FDEP has been a leader among the Region 4 states in providing technical assistance, computer tracking systems, and these newsletters. Also, all of you in the Florida pretreatment programs are commended for the very successful workshops and voluntary certification activities. Other states have workshops, but the certification program is unique to Florida.

**CITIZEN SUITS**

Local pretreatment personnel sometimes comment that the FDEP and EPA are overly stringent on the requirements for “fine tuning” the local ordinances, permits, monitoring, and enforcement procedures. There are good reasons for including these details. First, it may be surprising to some of you as to what loopholes the industries can find, if the legal, technical, and administrative procedures are not covered in every detail. There have been examples of this in some areas of Florida.

The second reason is the potential for citizen suits. Environmental groups have become more and more interested in the pretreatment activities in Region 4 during the past two years. These groups threatened or entered suits against both industries and POTWs for
violations of the pretreatment requirements. In North Carolina, a group started legal action against all pretreatment violators in an entire river basin. In Memphis, they regularly look at the City’s files on all industries that are published as being in SNC. There have been citizen suits in most of the states of Region 4.

Based on the above considerations, it would be to everyone’s advantage to keep the permitting, monitoring, compliance, and record keeping activities at peak condition at all times. You never know when that surprise visit may be made by an interested citizen! Documentation and follow-up on all violations in accordance with the Enforcement Response Plan are not only beneficial to the POTW, but could be beneficial to the industry in these situations.

**EFFLUENT TRADING**

EPA issued a policy statement in February concerning effluent trading. It was aimed primarily at direct dischargers to allow the selling or trading of excess reduction credits to other dischargers in the watershed. The policy strongly encourages pollution prevention and innovative technologies. However, this has minimal application to the overall pretreatment program.

In the early days of developing the local pretreatment programs, EPA gave guidance on how local limits could be established. Once the headworks loading was determined, the loading could be distributed to the industries by one of two basic methods. The first is the uniform concentration method that is used by POTWs in Florida. The second method is mass proportion, which is used in some states in Region 4. In this process, each industry is given a mass allocation (lbs./day) based on the initial loading. The POTW could use a simple ratio method with the same percent of reduction or use a selected industry method based on need. This would be the same as effluent trading, except, the POTW would be in control of the permitting process.

**REGULATIONS**

Activities are proceeding on revisions to the General Pretreatment Regulations and issuing new categorical regulations. However, the processes are very slow due to many factors including technical, administrative, legal, and budgets. This is a brief status report:

**Modifications** - Section 403.18 is being changed to stream-line the program modification procedures. (See Regulatory Updates.)

**Streamlining** - Changes are being considered to simplify parts of the 403 regulations. Issues and drafts are being circulated for review with a proposal expected in June 1997.

**Categorical Standards** - A tentative date of March 1997 has been set for the following five categorical standards (effluent guidelines) to be published in the Federal Register:

**Final Rules:**
1. Centralized Waste Treatment
2. Metal Products & Machinery (Phase I)
3. Pharmaceutical Manufacturing

**Proposed Rules:**
1. Industrial Laundries
2. Transportation Equipment Cleaning

There is a possibility that the Metal Products & Machinery Phase I standards will be combined with the Phase II standards. If this happens, the combined set of standards will not be promulgated until 1999. We will use this newsletter to keep everyone informed on the status of the regulatory changes.

---

**Reminders:**

- Annual reports are due for some approved pretreatment programs on August 1.
- The 1996 Association of Metropolitan Sewerage Agencies / U.S. EPA Pretreatment Coordinators Workshop is going to be held in Miami this year! The workshop is scheduled for November 6-8 at the Doral Ocean Beach Hotel. If you have any questions, please contact Sam Hadeed of AMSA at (202) 833-4655.
- It is important to work closely with your industrial users to help them maintain compliance with applicable pretreatment standards and requirements. Additionally, whenever your pretreatment program has an industrial user with a repeating pattern of noncompliance, it is equally important to escalate enforcement as necessary to bring the user into compliance in a timely manner. Continued failure to resolve compliance issues opens the door for other parties to take action.

The U.S. Department of Justice (DOJ) has recently announced that one industrial user, a dairy food processor, was fined more than 4 million dollars for over 2,000 violations of the Clean Water Act. According to an EPA official, the fine should be a clear signal for polluters to clean up their act and comply with their discharge permits. The DOJ stated that this is the largest Clean Water Act penalty ever in a case that has gone to trial.
June 30 ended our first full fiscal year since delegation of the NPDES pretreatment program. It’s been an interesting and challenging year. While some of you probably wished we never came to “visit” you, I hope you all understand our position. Although EPA previously oversaw the pretreatment program in Florida, EPA has transferred this oversight responsibility to the state. As the Department responsible for this program, we must implement the program requirements consistent with our statutory authority. I hope the transition has not been too difficult for anyone.

I would like to present a few statistics (all engineers like to do that) and highlight some of the many observations of the pretreatment program made by me and other staff members during this first year.

**Statistically speaking:**
- 34 pretreatment compliance inspections were conducted,
- 11 pretreatment program audits were conducted,
- 28 industries were visited during PCIs/PPAs,
- 14 CIUs under direct DEP regulation were inspected,
- 41 annual reports were reviewed (5 others went directly to EPA),
- one approved pretreatment program was inactivated, and
- 15 new pretreatment programs are in various stages of development.

From an observation perspective, we found that most approved pretreatment programs are effectively implementing their programs. Industrial user permits have been adequately prepared and self-monitoring data is being received and tracked. We have found some problems with the calculation of significant noncompliance and, in some cases, lack of escalating enforcement. Also, there are many programs without technically based local limits.

Another area that appears to be somewhat of a problem is the filing systems employed by some of the programs. It is very difficult to find important information in some of the program’s files. I suggest that each program take a look at its filing system and consider its adequacy. If necessary, files should be purged of dated correspondence and archived or recycled.

We are still in the rising portion of the learning curve at this time. I believe we all learned quite a bit about each other this first year and will learn even more in the subsequent years about how we each do our business. Most approved programs had to make several midcourse corrections. But, the good news is that future compliance inspections and audits should be much less painful.

By in large, the approved pretreatment programs in Florida are in pretty good shape. Overall, I am pleased with my first year’s observations and contact with the state’s programs and staff. I’m confident that this second year will produce improvement over the last. I look forward to working with you all, and I encourage you to keep up the good work.

**Hey Joey, Did You notice the YEAR that flew by?**
Hurricane Preparedness for Domestic Wastewater Facilities!

by Richard Addison, P.E.

Dealing with a hurricane or its aftermath is hopefully something that none of us will experience. However, based on recent years, we are all reminded how devastating hurricanes can be. We hope you will not need the hurricane preparedness tips compiled below, but, if you do, here are a few things to think about.

Before the Hurricane.
1. Ensure that updated copies of as built drawings of the facility and collection system are available. These may be invaluable in locating valves, electrical boxes, manholes, force mains, etc.
2. Maintain in good repair all mechanical equipment.
3. Familiarize personnel with hurricane procedures.
4. Areas subject to flooding should be studied. Areas prone to flooding include pump wells, pipe galleries, outside open tanks, manholes and other similar areas. Special equipment required if these areas are flooded should be purchased.
5. Prepare a list of key people and how they can be contacted. Communication networks can be a real problem after a hurricane. Some type of communication other than the telephone is essential. Portable radios (CBs) or cellular phones are suggested. Make sure extra batteries are available.
6. Power outages may be common after a hurricane. Check all auxiliary and standby equipment. Correct any malfunctions. Battery chargers and adequate fuel supplies (10 - 14 day period) to operate auxiliary equipment should be provided. Fill all fuel tanks.
7. Mobile gasoline powered pumps should be available to respond to pumping station emergencies. All pump stations should be provided with an emergency connection so the mobile pumps can be connected quickly and efficiently. Maintain list of both the generator size needed and specific type of emergency connection for each pump station.
8. Check and stock critical spare parts.
9. Check and stock all essential chemical inventories (10 - 14 day period).
10. Check all vehicles for proper operation and fuel.
11. Designate personnel that will be on duty (unless unsafe) during the hurricane and allow time to make arrangements for the protection of their home and family. Make arrangements for the comfort and well-being of personnel to be on duty (coffee, cots, non-perishable food, potable water, emergency supplies, first aid kits, flashlights, etc.).
12. Board up windows and tie down or secure any supplies or materials to prevent them from becoming airborne during the hurricane.
13. Drain wastewater holding ponds as completely as practical after receiving hurricane warning.
15. Large chlorine gas facilities may need to be turned off and secured for safety considerations. An alternative method to feed chlorine should be available.
16. Getting into and out of a facility after the storm has passed may be challenging. Make sure there is an adequate supply of chain saws (including gas and oil), axes, etc., for clearing debris.

After the Hurricane.
1. Survey and assess the damage. List repairs needed and estimate work time to correct the damage. Proceed on repairs according to a priority list.
2. Determine if power loss is local or areawide. If loss is local, check all electrical circuits for shorts or system overload. If loss is area-wide, contact power company and coordinate repair and start-up operations with them.
3. Shut off electrical current to damaged equipment and repair.
4. Flooding of wastewater or sludge could expose personnel to hazards of waterborne diseases, areas or pockets of toxic and/or explosive gases, oxygen deficient areas, or electrical shock. Electrical current to submerged lines or equipment should be shut off. Portable pumps should be provided to aid in the dewatering process. Gas or oxygen deficiency in flooded areas should be checked. Do not enter closed areas alone and ventilate area. Do not use unprotected lights or electrical equipment during clean up operations. Special consideration should be given to preventing contamination of the potable water supply.
5. Coordinate with the local water utility and establish priorities for repairing lines and facilities after a hurricane. The water supply system may suffer major damage resulting in very little flow reaching the lift stations and wastewater treatment facility. Once water service is restored, lift stations and the wastewater treatment facility should be operational. If not, spills or discharge of raw or partially treated wastewater will result.
6. Provide for lime application of spills.
8. Any major damage to the wastewater system should be immediately reported to the local DEP office. Reports concerning any minor damage should be reported as soon as possible after the hurricane. Let the local DEP office know if assistance is needed.
Additionally, it’s interesting to note that some of those indicating “no” to the question of additional regulation, stated that the existing requirements should be clarified in some way.

The questionnaire responses indicated each of the six disposal methods listed in the survey were employed by industrial users. A few respondents checked “other” as a disposal method; however, the “other” description generally fit the classification for “reclamation” (e.g., used oil recovery or silver recycling).

By far, most common disposal method reported for industrial wastewater sludges was shipment to a hazardous waste treatment, storage, or disposal facility (TSD). The second most commonly reported method was disposal at a solid waste management facility such as a landfill. Some programs reported that wastewater treatment sludges from their industrial users were being land applied and a like number indicated that sludge was not being generated by their industrials users. A few pretreatment programs indicated that their domestic wastewater facilities accept sludge from its industrial users.

Over 50 percent of the pretreatment programs in the survey indicated that they either do or plan to include notification statements for sludge disposal requirements in their industrial user permits. A similar number of pretreatment programs responded that their ordinance contained specific language for disposal or management of industrial wastewater sludges.

Percentage of respondents who felt the Department should address pretreatment sludges more thoroughly (e.g., clarification or cross references to existing requirements)?

- yes 39%
- no 25%
- no opinion 36%

Percentage of 469 permitted industrial users generating sludge.

- Sludge Generating 40%
- Remaining Permittees 60%
While only about half of the pretreatment programs indicated that their permits or ordinance had any statements related to pretreatment sludges, an overwhelming majority indicated that they conduct reviews to assure that industrial sludges were properly disposed.

Only 11 percent of the programs indicated that they had ever experienced a problem related to improper sludge disposal. However, as one might expect, each pretreatment program that had experienced a problem in the past were among those who periodically reviewed industrial user information and methods for sludge disposal.

A number of respondents offered additional comments related to pretreatment sludges. The majority of those comments involved ways to clarify the existing requirements for both pretreatment programs and industrial users. Most respondents expressed opinions that these requirements already existed, but, clarification was probably necessary or, in their case, would not hurt since they were already aware of these requirements.

In summary, one may infer from the survey results that most pretreatment programs are not experiencing ongoing problems related to improper disposal of pretreatment sludges. Whenever a problem has been encountered or identified through inspection, etc., the pretreatment program has had sufficient regulations at their disposal to require that industrial users remedy the problem. Despite the availability of applicable requirements, most respondents felt the Department should attempt to clarify the existing sludge disposal requirements and their relationship to pretreatment programs.
Minor Revisions to Chapter 62-625, F.A.C.

by Robert Heilman, P.E.

The Department is in the process of making several minor revisions to the State’s pretreatment rule, “Pretreatment Requirements for New and Existing Sources of Pollution,” Chapter 62-625, Florida Administrative Code (F.A.C.). The revisions are in the preliminary phase; however, the Department hopes to schedule these minor revisions for Secretarial adoption before the end of this year.

The minor revisions are essentially in response to comments from the State’s Joint Administrative Procedures Committee (JAPC). However, a few additional revisions to the rule are necessary to ensure consistency with several recent revisions to both federal and state regulations.

Revisions per JAPC Comments

- The Department received JAPC comments dated January 19, 1995 and April 6, 1995 which noted 11 areas of concern with the existing rule. Several of JAPC’s comments were editorial in nature and only required a Notice of Change to be filed. This notice had been filed before the effective date of the existing rule. All of the remaining JAPC comments were addressed in letters from the Department to JAPC which contained draft language that was to be adopted at a later date.

Revisions per Federal Regulations

- 40 CFR Part 403 (the federal pretreatment regulation) was modified on June 29, 1995 to delete several references to obsolete dates. In our initial drafting of Chapter 62-625, F.A.C., we omitted portions of several sections of the federal regulation that appeared to contain obsolete language. However, there were a few dates that we left in the state rule. The federal regulation revisions deleted additional obsolete dates; therefore, these will now be removed from the Department’s rule to maintain consistency.

- Changes to the federal sludge regulations (40 CFR Part 503) dated October 25, 1995 affected some parts of 40 CFR Part 403. There were changes to the removal credit language and to the tables of pollutants eligible for removal credits. Therefore, Chapter 62-625, F.A.C. will need to be revised for consistency.

Revisions per State Rules

- Recent revisions to Chapter 62-610, F.A.C., (Florida’s reuse rule) relocated several sections of that rule. Therefore, it is necessary to correct the rule references to Chapter 62-610, F.A.C., that appear in Chapter 62-625, F.A.C.

None of the above proposed revisions are considered substantive. We plan to send out courtesy copies of the revised rule to pretreatment coordinators for your comments prior to adoption. However, because the proposed revisions will not pose any additional burden on the regulated public, there will be no formal public workshops or rule presentations. If anyone has any questions about the proposed revisions to the pretreatment rule, please contact one of the pretreatment staff at (904) 488-4524. We will keep you informed as we move forward with these revisions.

Proposed Revisions to Chapter 62-640, F.A.C. Are In The Works

by Lee Smith, P.E.

The Department began revising its domestic wastewater residuals rule following EPA’s promulgation of the federal biosolids regulation, 40 CFR Part 503, in 1993. After delays that arose from risk management and nutrient management issues, the rule making process is now back on track.

The current version of the proposed rule incorporates concepts from the Department’s program guidance memoranda into rule, and adopts treatment standards from the federal Part 503 regulation. Additionally, the proposed rule has provisions for residuals management facilities and septage management facilities, which are not specifically addressed in the current rule. The revisions also address some miscellaneous issues and clarifications that are not covered by the current rule or the Department’s program guidance memoranda.

The revisions will improve the consistency between federal and state regulations, and will equip DEP staff with rules that are needed both to implement existing policies and to effectively regulate residuals and septage management facilities. Additionally, persons operating residuals or septage management facilities will benefit greatly from the revisions, which will clarify what the Department expects of them.

The revisions will also facilitate a watershed-based approach to mitigation of potential phosphorus impacts in certain areas of the state
where phosphorus is of particular concern.

Key areas addressed in the draft revisions to Chapter 62-640, F.A.C. include:

1. Clarifying lines of jurisdiction between the DEP and the HRS with regard to septage management facilities, based on the amount of septage that is treated per day.

2. Providing for watershed-based measures to address potential phosphorus impacts in areas of the state where phosphorus is of particular concern as a water quality issue.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Addressing “other solids”, which are not addressed in the current rule. Other solids are basically sand and grit that accumulate in primary and secondary treatment components of domestic wastewater facilities; however, these solids do not include materials derived from screening at the facility’s headworks or from collection systems.</td>
</tr>
<tr>
<td>6.</td>
<td>Refining and incorporating provisions from program guidance memoranda for residuals and septage management facilities. The Department is preparing a draft of the proposed rule for public workshop. We will keep you informed as rule development continues.</td>
</tr>
</tbody>
</table>

5. Adopting pollutant limits for metals that are not currently regulated by this chapter, for which risk-based limits have been established in the federal Part 503 rule.

4. Adopting federal Part 503 requirements for reduction of pathogens and vector attraction.

3. Florida Residuals: Spread the Wealth!