The Sunshine State

Pretreatment Communicator

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THE COMMUNICATOR...

"The Communicator" is a quarterly publication of the Pretreatment Program for the Florida Department of Environmental Protection. The Communicator encourages participation from its readership and any other individuals interested in pretreatment in the State of Florida. Individuals wishing to contribute letters, information, or articles should submit them to:

The Communicator
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The **Pretreatment Communicator** reserves full editorial rights to all submissions. Anyone with questions about this newsletter, wishing to make comments, or wanting to be included on our mailing list, should contact the pretreatment program staff at (904) 488-4524 or write to the above address. 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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Do You Want to Model Your Form - That is the Question?

by Richard J. Ruede
Industrial Pretreatment Coordinator
City of Lakeland, Florida

During the last meeting in Titusville with pretreatment coordinators and FDEP, an issue was discussed whether there is a

(Please see **Forms, page 4**)

Check Your EPA Method Footnotes!

by Lisa Meday
City of Hollywood

"Nitrite (NO_2) and nitrates (NO_3) in wastewater samples may cause erroneous cyanide results!" The City of Hollywood Industrial Pretreatment Program, in conjunction with its contract laboratory, has recently learned the importance of being aware of the many footnotes in EPA's analytical methods. Section 5.4 of EPA's cyanide test method, Method 335.2 states:

> "High results may be obtained for samples that contain nitrate and/or nitrite. During the distillation nitrate and nitrite will form nitrous acid which will react with some organic compounds to form oximes. These compounds formed will decompose under test conditions to generate HCN. The interference of nitrate and nitrite is eliminated by pretreatment with sulfamic acid."

The specific procedure for adding sulfamic acid to the sample is set forth in section 8.3 of Method 335.2. Analysis for the amenable form of cyanide is calculated from total cyanide, therefore, the check for

(Please see **Cyanide, page 2**)

Cyanide Analyses

(Continued from page 1)

nitrates and/or nitrites and sulfamic acid addition will also eliminate interference for amenable cyanide analyses.

The City of Hollywood Industrial Pretreatment Program discovered, first hand, the value of knowing about nitrate/nitrite interference, as it was investigating causes for reported high levels of amenable cyanide in the effluent from the Hollywood Wastewater Treatment Facility (WWF).

During discussion with the City's contract laboratory, the laboratory's project manager identified the possibility of interference from nitrates which may affect both amenable and total cyanide analyses.

Several samples were analyzed to confirm the possibility of matrix interference and the occurrence of false positives for cyanide. Some of these samples were collected by industrial pretreatment staff from permitted industrial users known to use cyanide in their processes. Other samples were collected from permitted industrial users that had previously exceeded the City of Hollywood's local limit for cyanide; however, a source for the cyanide at these facilities was not found. Finally, WWF influent and effluent samples were collected.

Samples of WWF influent and effluent were analyzed for amenable or total cyanide, both with and without the addition of sulfamic acid. The sample that was analyzed for total cyanide was also analyzed for nitrates. Please note, the detection limit for the cyanide analyses was reported as 4 ppb.

Figure 1 shows the change in cyanide concentrations that resulted from the addition of sulfamic acid to effluent samples. Figure 2 shows a similar comparison for samples collected from industrial users. Most importantly, where cyanide was expected to be present, the use of sulfamic acid did not significantly affect the laboratory result.

The contract laboratory also used internal spike samples to compare results from samples containing 10 mg/L of nitrate. Figure 3 shows the results of the spike tests. In samples spiked with cyanide, there was a slight difference between each sample compared to the target spike concentration of 49 ppb. However, this difference is likely caused, at least in part, by routine analytical variability.

The results of the City of Hollywood Industrial Pretreatment Program study of cyanides, nitrates and effects of sulfamic acid has

Congratulations!:

Congratulations to Jerome Mickens of Hillsborough County for being the 1996 recipient of the Robert E. Heilman Pretreatment Award! Each year the recipient is selected by the Pretreatment Committee of the Florida Water Pollution Control Operators Association. Way to Go Jerome!

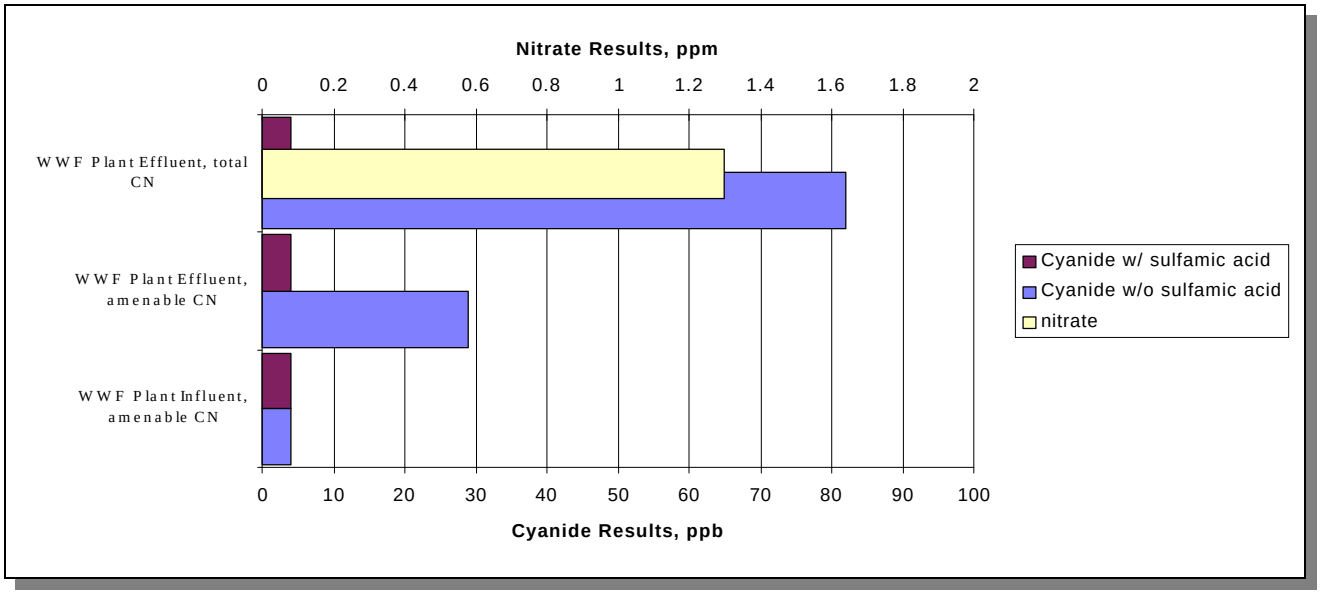


Figure 1. Comparison of cyanide results in WWF influent and effluent with and without sulfamic acid addition to the sample. Nitrate results were available only for the effluent sample analyzed for total cyanide.

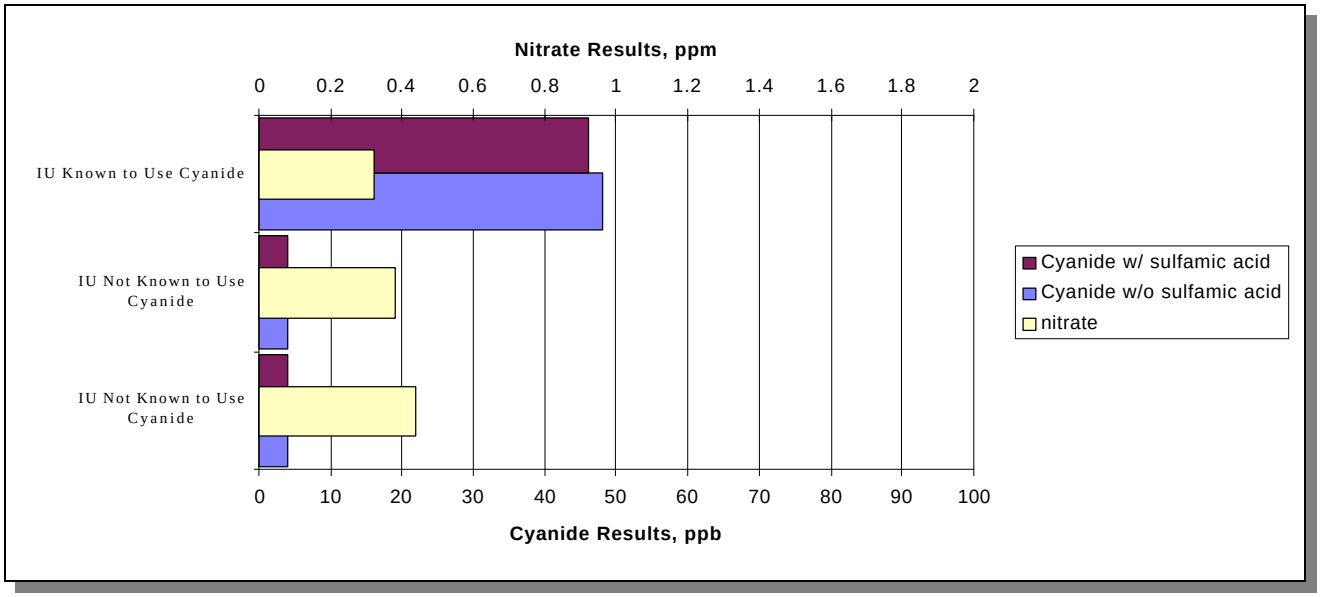


Figure 2. Comparison of cyanide results in IU discharges with and without sulfamic acid addition to the sample.

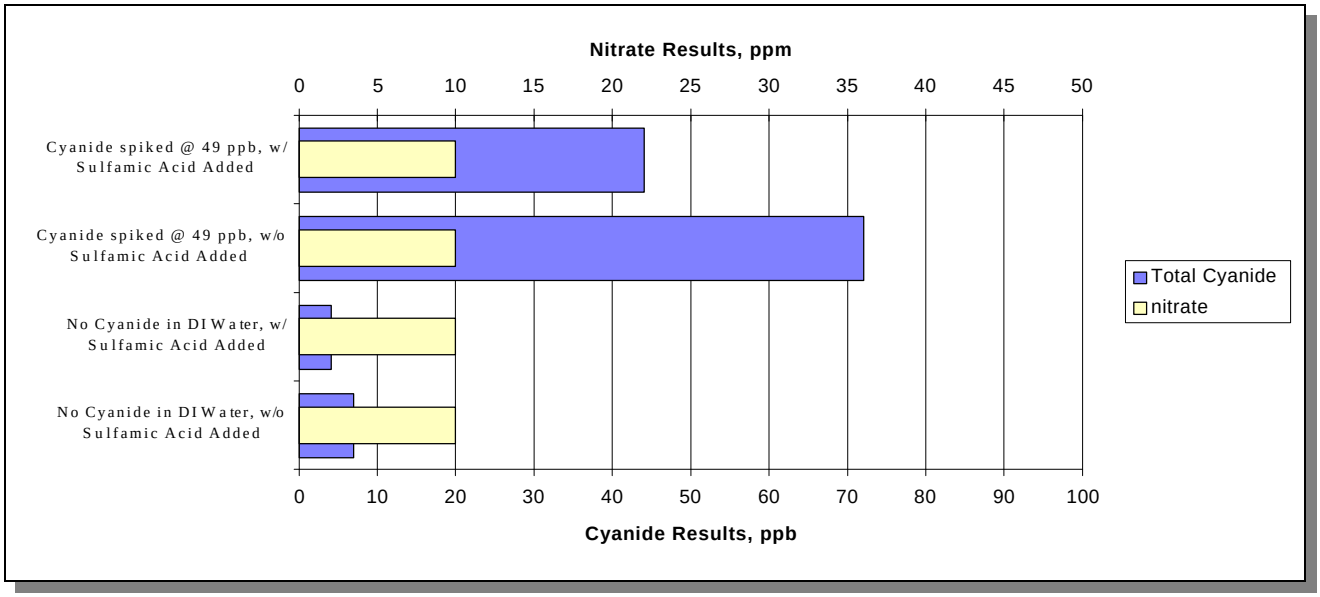


Figure 3. Comparison of cyanide results in laboratory samples with and without sulfamic acid addition to the sample.

proved valuable. The results indicate that when nitrates were present, the addition of sulfamic acid appeared to eliminate interference as is suggested by EPA's method footnotes.

As shown in Figure 1, the total cyanide result changed from 82 ppb to Below Detection Limits following the addition of sulfamic acid. In industrial users samples, where cyanide was not thought to be present and where nitrates were present at levels of 0.44 and 0.38 ppm, cyanide analyses were Below Detection Limits with and without sulfamic acid. Where the industry was known to use cyanide, and nitrate levels were at 0.32 ppm, cyanide results did not appear to be affected.

The City of Hollywood Industrial Pretreatment Program has instituted a policy whereby samples to be analyzed for cyanide (total or amenable forms) must be accompanied with a sample for nitrate analyses. This policy will enable our laboratory to utilize sulfamic acid whenever necessary! ☻

Reminders:

- The next Florida Pretreatment Coordinator Certification courses are planned for April 28-May 2 in Ft. Myers. Current plans call for both the Level C and Level B course to be offered. For additional information, please contact Suzanne Flores at (904) 630-4231.
- Some annual reports are now due November 1.

Forms

(Continued from page 1)

need for "model" forms for inspections, surveys, and wastewater discharge permits and the like. According to Bob Heilman, programs should be careful when using forms from other programs. There are some forms out there which barely meet the requirements of Chapter 62-625, F.A.C., while others not only meet, but go way beyond the necessary requirements.

In an effort to help beginning programs and also to assist existing programs, the idea for some kind of model forms for the pretreatment program has emerged. The long term outlook would be to have a State of Florida Guidance Manual for Industrial Pretreatment Program Development and Implementation. This document would contain model language and procedures, as well as example forms. The use of the forms would not be required; rather, they would be available as examples only.

The State Guidance Manual (SGM) would be developed cooperatively by existing pretreatment programs throughout the state and FDEP. Two States, North Carolina and Michigan, have developed manuals that could serve as models for Florida's SGM.

The process must begin by developing some kind of standard format for the model forms. Many forms in use across the state are similar in design based on the network of sharing forms between pretreatment programs. Some of the existing forms are based on forms from the Sacramento Courses or EPA Guidance Manuals. Of course, last but not least, is the ever so "original form" that came about during the afternoon nap.

Most existing forms were developed by programs who took sections out of a number of other forms and developed their own by the old "cut and paste" procedure we all learned in kindergarten and first grade. After so many years of schooling and years of experience, did we ever think that something we learned as a little kid would ever come in so handy! Many of us would make our first grade teachers very proud of the work we do.

To start this process, Bob Heilman and myself have talked about forming a committee to develop model forms and eventually the guidance manual for the state. Currently we are looking for volunteers to help in this endeavor. Any one wishing to volunteer for this committee can contact Bob at (904) 488-4524 or me at (941) 499-8277 #2.

At the end of this newsletter is a survey about your thoughts and requesting input regarding this topic. The survey asks if you would be interested in using model forms, which forms you feel are important and which forms you feel should be developed first. Any and all comments will be considered and shared during subsequent Pretreatment Workshops.

Again, this is an opportunity for people to get involved in developing a State Guidance Manual that can be beneficial to all. Please take a moment and fill out the survey and return it to me at the address on the form. Any assistance you can offer will be greatly appreciated! ☻

No Ties Allowed!

by John Coates and

Robert Heilman, P.E.

The 1996 AMSA/EPA Pretreatment Coordinators workshop was held on November 6-8 "way down south" in Miami Beach. The meeting started on an upbeat note when one of the conference organizers warned that the dress code was "smart casual." As an example, he proceeded to take scissors and cut a tie which was being worn by one of the attendees into 6 little pieces (since he resides in EPA Region 6!). A lesson to us all that casual means "NO TIES ALLOWED!" However, we're still not exactly sure what "smart" casual means.

After introductory remarks, EPA's Chief of the Pretreatment and Multimedia Branch, Elaine Brenner, spoke and provided some insight into what we could expect during the upcoming year. Elaine said that she expects EPA to renew its focus on core program areas such as pretreatment. Additionally, Elaine indicated that she expects to focus efforts on the metal finishing common sense initiatives.

Various EPA personnel made several additional presentations that provided updates on the

(Please see **Workshop, page 6**)

The Coordinator's Desk:

Wave of the Future !!

by Robert Heilman, P.E.

There has been a plethora of articles and discussions lately on the topic of privatization of utility services, particularly water and wastewater services. If you attended the Water Environment Federation conference in Dallas, you would have heard much discussion on privatization. This issue was also designated this month's "hot topic" on the Water Environment Federation (WEF) WEB site. Even if you only attended our last pretreatment coordinator's workshop in Titusville, you would have heard some discussion on this topic. The reason that this is being discussed so much by public utility employees is because it's a real concern. **You** could find yourself having to justify whether or not your pretreatment program should be privatized.

Privatization has about an equal number of proponents and opponents. There appear to be advantages and disadvantages to privatization. Some privatized employees say that their new employer offers higher pay, with merit bonuses for certifications, and decisions can be made more quickly. Others who were subjected to privatization have been laid-off or terminated.

Private companies claim to be more efficient and cost-conscious than public utilities. They claim to be able to reduce chemical usage and power consumption, resulting in reduced operating costs which are reflected in contract costs. Further, because many of the existing wastewater treatment facilities are needing upgrade or expansion, and federal or state funding is nonexistent or limited, private companies are coming to the rescue with "deep pockets." This is a very attractive offer for local government officials who are strapped for cash and are looking to be re-elected. Most private companies contract to operate and maintain public utilities. However, one public wastewater utility in the U.S. was actually purchased by a private joint venture.

The regulatory aspects of privatization have not been totally evaluated yet. When a public utility is operated and maintained under contract, the permittee is generally the public utility. Any permit violations and resulting enforcement would be taken against the public utility. The private company involved could be subject to contract non-renewal or termination for breach of the contract. An option is to have the public utility and the private company listed as co-permittees on one permit. Current regulations allow for the co-permitting option. However, private firms managing an industrial pretreatment program as part of an operating contract, may have information on discharges from facilities owned by competitors or corporate affiliates. This could result in conflicts of interest or enforcement directed at the competition. How these situations would be handled is not clear under the current regulations. There are many other regulatory concerns too numerous to mention here.

So, how does one deal with the prospect of privatization before it is voted on in council chambers? I suggest that public utilities take a close look at how they are currently doing business. Are you being as efficient as possible? Are you doing the necessary amount of inspection, sampling, and reporting? Can personnel requirements be scaled back and still maintain the quality of the program? How can you do a better job of recovering the costs of administering the pretreatment program and still comply with the regulations? These are just some of the questions that should be discussed with the pretreatment program staff and management. If you can demonstrate that you are operating a cost-effective program, you will have a better chance of not being privatized. However, it may be in the program's best interest to be privatized. The decision of which alternative is appropriate can only be determined on a case-by-case basis after a fair evaluation.

I share these words not to alarm anyone or express any particular opinion regarding the viability of privatization. My purpose is to point out that it's "coming to a city near you." If you are not educated on this topic, I suggest you begin the process now. One source of information can be found by visiting the WEF Home Page at http://www.wef.org. ☻

Technical Tips:

Oh those troublesome pH excursions!

Like most pretreatment programs, your ordinance probably contains pH limits expressed as a range (e.g., 5.5-9.5). Of course, this should be in addition to the mandatory specific prohibition against discharge of corrosive wastewater including wastewater with a pH of less than 5.0.

Many pretreatment coordinators have asked if they can grant waivers for occasional pH excursions. Based on EPA policy, the short answer is "yes" as long as the following restrictions are met:

- pH discharges below 5.0 can not be permitted unless the collection and treatment systems are specifically designed to accommodate such a discharge,
- the waiver can not override a pH limitation that may apply in some categorical pretreatment standards, and
- a waiver may not be granted if the waiver would contribute to pass through or interference.

It is important to note that EPA's policy applies to facilities that employ continuous pH monitoring and is based on analogous rule requirements for direct discharging facilities at 40 CFR 401.17. The pH excursion policy is explained in greater detail in a May 13, 1993 letter from EPA to Mary Jo Aiello at the New Jersey Department of Environmental Protection and Energy. If you would like a copy of EPA's policy as stated in their letter, please contact one of the pretreatment staff in Tallahassee at (904) 488-4524.

Workshop

(Continued from page 4)

pretreatment streamlining efforts and the development status of several point source effluent guidelines. During the presentation by Sheila Frace, Deputy Director of the Engineering & Analysis Division, she said that the NRDC has offered support to the idea of combining Phase I and Phase II of the Metal Products and Machinery Point Source Category. This is important since NRDC was party to the court order that requires EPA to develop these effluent guidelines.

John Lyon, in EPA's Water Enforcement Branch, summarized several recent court cases related to pretreatment. Of particular note was the name of the presiding judge in the Dean Dairy Case (see Reminders in the July, 1996 **Pretreatment Communicator**). Her real name is "Judge Rambo." No wonder this was the largest pretreatment related fines to be awarded by a court!

The remainder of Wednesday morning was consumed by additional interesting presentations. Of course, one of the highlights was the presentation by Suzanne Flores summarizing Florida's Pretreatment Coordinator Certification Program.

During lunch on Wednesday, we heard a presentation on AMSA Pretreatment Performance Measures Case Studies. The first part of the afternoon session on Wednesday was spent as participants from the AMSA-WEF Pretreatment Streamlining Workshop in August 1996 relived their experiences and perceptions from this meeting. Apparently, these individuals were locked in a grueling schedule trying to identify issues that EPA should address as part of their streamlining efforts.

The remainder of Wednesday was spent in regional breakout sessions. At the breakout session for Region IV, co-facilitated by Bob Heilman and John Gonzales, participants identified a number of issues for discussion. One of these issues addressed different ways that programs could allocate their allowable industrial loading to industries when developing local limits. In Florida, local limits are generally developed to apply uniformly to all industrial users. However, programs in some states allocate loading based

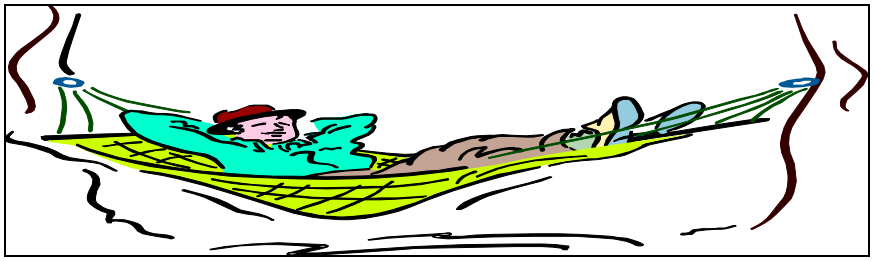
Regulatory Updates:

- On November 6, 1996 (61 FR 57518), EPA issued a final rule for Subcategories C and E of the Pesticide Chemicals Point Source Category. This final rule will be codified at 40 CFR 455. The final rule contains a zero discharge requirement for Agricultural Refilling Establishments under Subcategory E. Formulating, packaging, and repackaging facilities, under Subcategory C, are provided with a choice between a zero discharge requirement or a pollution prevention alternative that is specified in the rule. EPA indicated it is in the process of preparing a guidance manual for implementing these new rules.
- The U.S. EPA reopened the comment period on November 4, 1996, for the Notice of Data Availability for the Centralized Waste Treatment Point Source Category. The extension provides an additional 20 days for comment on new data which EPA has received since the CWT proposed rule was published on January 27, 1995.

on the relative amounts of that pollutant being discharged by each industry. A more common variation was to use a modified-uniform allocation method based on an allowable industrial loading and an industrial flow that is specific for the pollutant being allocated.

Other topics of interest included the need for easy access to electronic information, and discussions on the application of categorical limits at various facilities in Region IV.

Wednesday was rounded out by the informal social in the "starlight" room of the Westin Ocean Beach Hotel. Probably some of the most informative conversations happen at these social gatherings since you have the opportunity to hear other experiences and share your own war stories. Of course, the opportunity to get to know little tid bits and some of the interesting history about your fellow coordinators shouldn't be missed.



Hey Joey!, How's the Annual Report coming along?

Thursday morning started with a another breakout session which focused on special cases for developing local limits and incorporating these into control mechanisms. There were a number of topics suggested for discussion including developing local limits for organics, effluent trading, implementation of Best Management Practices (BMPs), perchloroethylene discharges from dry cleaners, etc. Too much to review here! However, we will be addressing some of these topics in future issues of the **Pretreatment Communicator**.

The first part of Thursday afternoon was spent hearing and discussing presentations related to BMPs and silver related issues. These discussions focused on differing opinions on how BMPs could and could not be used in the context of the national pretreatment

MODEL FORMS SURVEY

Please complete and return to: Rick Ruede, City of Lakeland, 1825 Glendale Street, Lakeland, FL 33803

1. What are your feelings regarding the development of a State Guidance Manual (SGM)?

   _____
   _____

2. Which forms should be developed first? Please rank the following in the order you feel should be developed.

   New User Survey (____) Inspection Form (____) Model Ordinance (____)
   Discharge Permit (____) Slug Control Plan (____) Multijurisdictional Agreement (____)
   Ordinance/Legal Authority Checklist Form (____) Chain-of-Custody Form (____)
   Others (specify)_____ (____) _____ (____)

3. From what source or how did you develop your forms? Please list as many as you feel are important to this survey.

   Inspection: _____ Ordinance: _____
   Permits: _____ Others: _____
   Surveys: _____ Others: _____
   Slug Plans: _____ Others: _____

4. Could you provide examples of any or all of the forms listed above or that you use in your daily program implementation? If so please included them with this survey either on disk or hard copy. If these forms are on disks, please mark the software and version below:

   Word Perfect (__) , MS Word (___), Lotus (___), Excel (___), Quatro (____), Other: _____

5. Are you willing to participate on the committee? Yes (___) No (___)
   If so, what time or resources could you perform?

   _____
   _____

program. Stay Tuned... I'm sure this topic will continue to develop!

There were several very good presentations Thursday afternoon based on the Common Sense Initiatives and the metal finishing sector. In addition to the general discussions, Bill Sonntag, with the National Association of Metal Finishers, gave the WEB address of a site that is sponsored by EPA in conjunction with a number of other metal finishing groups. The location is: http://cai.eclipse.net/home2.htm. The site requires that you "sign up" and use a password. It looks interesting and appears to contain a wealth of easily accessible electronic information!

The final morning of the AMSA/EPA Workshop was dedicated to presentations from pretreatment programs that had recently received EPA National POTW Pretreatment Awards. These presentations were very interesting and provided some insight into the complexities and challenges faced by other programs. For example one program boasted that they had an army of 125 inspectors "on the street" involved in their local pretreatment program.

The final presentations of the day were slated for programs that had taken innovative steps to incorporate pollution prevention into their programs. In Seattle, Washington, the pretreatment program has ventured into mainstream America with its message. Some of the innovative approaches used by this program involved printing brochures to be distributed to households and arranging live promotional broadcasts by the local radio stations. They even managed to sponsor a "boat ride" and dinner for members of the local news media to get out the word on their household pollution prevention efforts.

All in all, the AMSA/EPA Pretreatment Coordinators Workshop was a valuable experience and a good way to learn how others are dealing with some common challenges. If you were unable to attend the workshop and would like a copy of the proceedings, you may contact Jeni Tomb at (202) 833-AMSA to request a copy. ☻

P.S. Next year's meeting is scheduled for November 5,6, & 7 in Norfolk, Virginia. Start planning now to attend.

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