

P3News

1st Half 2003

PRETREATMENT & POLLUTION PREVENTION

INSIDE



Enviro-Eddie 2

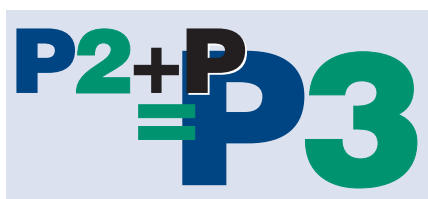
Inspection
Preparation 3



SIUs and Non-SIUs 4



Recent
EPA Actions 5



P2 News has evolved to *P3 News* and now includes pretreatment news you can use. We hope you like the new format, which we will ask our readers to evaluate. We'll offer a readership survey in a later issue to give you a chance to become familiar with *P3 News*. If you'd like to provide feedback sooner, please contact Nancy Gray, Public Information Manager, at ngray@hrsd.com.

Ron Johnson
Chief of Industrial Waste

Silver Best Management Practices: A Friendlier Alternative To Permitting

Contributors: *Debbie Crofford, Industrial Waste Specialist, and Ed Hartman, Industrial Waste Supervising Specialist*

Traditionally, many industries discharging silver to the sanitary sewer, through such methods as photo processing and x-ray developing, have been regulated by an HRSD Industrial Wastewater Discharge Permit. HRSD is now implementing a more industry-friendly alternative to permitting small silver dischargers. Small silver dischargers will now be regulated through best management practices (BMPs) rather than permits as an enforceable element of HRSD's pretreatment program.

Doctors, dentists, veterinarians, and photo processors are some examples of small dischargers, estimated to number 360,000 in the United States. A majority of these facilities have fewer than ten employees and discharge less than 1,000 gallons of wastewater per day. Collectively, however, small facilities discharge a significant amount of silver.

BMPs are the most effective, practical methods of preventing or reducing pollutants, including those discharged to wastewater treatment plants, or publicly owned treatment works (POTWs). Silver BMPs do not

rely on typical concentration-based (numerical) discharge limits that are used by many POTWs. With concentration-based limits, all facilities generating silver-bearing waste must perform sampling and analysis, which shows compliance with local effluent limits. In addition, facilities must maintain data and undergo annual inspections.

With BMP regulations, each facility has a specific removal efficiency that must be obtained, depending on the total gallons per

continued on page 6

EPA Recognizes HRSD As A Clean Water Partner

The EPA has designated HRSD as a charter *Clean Water Partner for the 21st Century*. The *Clean Water Partners* program honors organizations that have taken extraordinary efforts to protect and improve the nation's watersheds and help further national clean water goals.

Ask Enviro-Eddie

Dear Enviro-Eddie,

I believe I have established a pretty good pollution prevention (P2) program at my facility. However, my bosses notice the additional costs of some of the projects and want proof that the program makes a difference. How can I measure the success of the P2 program to satisfy my bosses?

Measuring Stick

Dear Measuring Stick,

To determine the success, or effectiveness, of your program, you must be able to provide the results of your activities. Focusing on results enables you to show changes in understanding and behavior of your target audience and, ultimately, quantify the positive effects on the environment and human health. EPA has identified two types of measures for gauging the effectiveness of P2 programs: *output measures* and *outcome measures*.

Output measures are the quantitative or qualitative results of important activities, work products, or actions of P2 programs. Examples of

output measures for P2 programs include the number of P2 assessments conducted, helpline calls answered, or fact sheets developed and distributed. Many P2 programs are initiated by determining the percentage, or portion, of the target audience that has been *reached*, although this does not indicate the effectiveness of the P2 activities.

Reach represents the portion of the target audience that received your message. An example of reach would be the percentage of company staff that has accessed your P2 Web site or has attended a P2 workshop. Understanding how effectively you have reached your target audience will help you measure the effectiveness of your efforts. For example, if your Web site, fact sheet, or workshop is reaching only a small portion of the target audience, there will be limited corresponding changes in awareness and understanding.

Outcome measures are quantitative or qualitative measures of changes in employees' behavior caused (at least in part) by P2 program activities. Outcome measures include *changes in awareness and understanding*, *changes in behavior*, and *environmental and human health improvements*.

Changes in awareness or understanding reflect an increased knowledge of P2 opportunities and related issues. Examples of changes in

awareness or understanding include the percentage of staff receiving assistance with P2 alternatives or the number of staff attending a workshop that helped them gain knowledge about P2 technologies.

Changes in behavior represent actual changes that staff has undertaken as a result of P2 assistance. Examples of behavioral change include the number of work areas that switched from a chemical to a water-based solvent, implemented at least one recommended P2 action, or installed a new P2 process.

Environmental and human health improvements are measures of the actual improvements at work areas that received P2 assistance. These measures indicate the scope and types of improvements resulting from P2 activities. An example would be the number of pounds of pollutant emission reductions at a facility as a result of adopting a P2 practice.

By measuring the effectiveness of your activities, you can better communicate the success of your P2 program to company management. This will help to influence company policy development by basing decisions on tangible, quantifiable data and to improve program performance by measuring progress toward goals. For additional measurement resources, consult EPA's Web site at <http://www.epa.gov/opptintr/p2home/resources/p2meas.htm>.

Happy measuring,
Enviro-Eddie



Do you have a pretreatment or pollution prevention question? Contact Enviro-Eddie at EnviroEddie@hrsd.com.

Inspection Preparation: A Little Planning Goes A Long Way

Contributor: Matthew Cox, Industrial Waste Manager

In most cases, industrial pretreatment inspections are scheduled with the industry, although HRSD may need to perform unannounced inspections as appropriate. A little planning before scheduled inspections can save staff time and effort and, quite possibly, money. Proper preparation will also help expedite inspections and minimize unexpected results.

Notification of an inspection provides the industry an excellent opportunity to perform an internal audit before the actual inspection. To help you and the HRSD inspector, particular emphasis should be placed on these areas:

- **Records retention.**
All required self-monitoring records (including completed chain-of-custody forms),

AWARDS NEWS

The deadline for P2 award applications has been extended. Applications must be post-marked by **March 17**. Please contact Ed Hartman at ehartman@hrsd.com or (757) 833-1751 for more information. P2 award winners will be announced during the annual awards ceremony on either May 7 or 8 (date to be finalized). Please mark your calendars and join us to celebrate our 10th annual pretreatment excellence awards and 6th annual P2 awards.

disposal manifests and receipts, and logs must be available.

- **Hazardous waste manifests.**
Current copies for all manifested hazardous wastes must be available.
- **Required operational logs.**
The documentation of various inspections, valve openings, or

permitted facility must be immediately available for inspection. Keys should be obtained or security personnel should be available to provide access, as necessary.

- **Review of sampling and analytical procedures.**
Sampling techniques and

Notification of an inspection provides the industry an excellent opportunity to perform an internal audit before the actual inspection.

other equipment operations should be checked, if these documents are referenced in your permit. Ensure that all logs are available and all entries are complete and correct.

- **Waste storage and chemical storage areas.**
All chemicals (including wastes) within close proximity to sanitary sewer access must be within proper containment. Verify this has been accomplished before the inspection.
- **Inspection coordination.**
All pertinent staff should be available to attend the inspection. Often, chemists, pretreatment operators, administrative staff, or other facility staff are unavailable or are unaware that their presence is required at the inspection.
- **Plant access.**
All buildings located on the

analytical procedures should be observed before the inspection.

During the inspection, the HRSD inspector should be advised of any upcoming changes within the facility that may affect the character and/or nature of the industrial wastewater discharge. Examples include production changes, chemical changes, and pretreatment system modifications.

Inspections help ensure that facilities are complying with their HRSD Industrial Wastewater Discharge Permits. This in turn helps HRSD comply with our Virginia Pollutant Discharge Elimination System permit, as established by DEQ. As a regulated and regulatory agency, HRSD is committed to outstanding performance in this dual role. Please contact your HRSD inspector if you have any suggestions to improve the inspection process.

Both SIUs And Non-SIUs Are Significant To HRSD

Contributor: Craig Forbes, Industrial Waste Supervising Specialist

If you're not used to reading environmental permits, you may find them a bit challenging to fully understand. Just ask any permitted facility. HRSD tries to simplify its Industrial Wastewater Discharge Permits, but industry representatives may still have questions about the content.

One frequently asked question concerns the industrial user designation, which is on the first page of your permit next to the North American Industry Classification System (NAICS) number. Your facility will either be listed as a Significant Industrial User (SIU) or a Non-Significant

Industrial User (non-SIU). Regardless of your designation, you are significant to HRSD, especially to your inspector.

Industries often ask how their industrial user designation has been made. It is primarily based on the types and quantity of wastewater discharged from a facility into the sanitary sewer system. To determine which one applies to your facility, simply refer to the HRSD Industrial Wastewater Discharge Regulations. The SIU definition (pages 10-11) states that an industrial user is an SIU if it meets any or all of the following criteria:

- 1 Is subject to categorical pretreatment standards.
- 2 Discharges an average of 25,000 gallons or more per day of process wastewater to a POTW (excluding wastes determined by HRSD to be nonindustrial, such as sanitary, noncontact cooling, and boiler blowdown wastewater).
- 3 Contributes a process wastewater stream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW.
- 4 Is designated by HRSD on the basis that the industrial user has a reasonable chance for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

Pretreatment Regulations & You

Effluent guidelines recently adopted or being developed:

<u>Category</u>	<u>Federal Register Citation (Date) or Deadline for Proposal</u>	<u>Final Action Date</u>
Metal products and machinery	1/3/01	2/14/03
Concentrated animal feeding operations (poultry, swine, beef, and dairy subcategories)	1/12/01	12/15/02
Meat and poultry products	2/25/02	12/03
Construction and development	6/24/02	3/04
Aquatic animal production	9/12/02	6/04
Pulp, paper, and paperboard (dissolving kraft [Subpart A] and dissolving sulfite [Subpart D])	12/17/93	9/04

Dates of interest for newly finalized categorical effluent limitations:

<u>Category</u>	<u>Implementation Date</u>
Transportation and equipment cleaning	8/14/03
Centralized waste treatment	12/22/03

Other EPA initiatives under review:

Pretreatment Streamlining Rule
Environmental Management Systems Rule
Effluent Guidelines Rule

For more information about pretreatment regulations, please contact Bernie Strohmeyer, Industrial Waste Manager, at bstrohmeyer@hrsd.com or (757) 460-7042.

The definition also states that HRSD may determine that such an industrial user is not an SIU. An SIU that meets any of the criteria 2 through 4 may be designated as a non-SIU. For this to occur, the SIU must have no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirements. An SIU that meets the first criterion does not have this option.

These criteria are used to determine your industrial user designation. This, along with other useful information regarding your permit, can be found in the HRSD Industrial Wastewater Discharge Regulations. Review both documents periodically and remember the regulations and permit go hand in hand.



Recent EPA Region 3 Enforcement Actions

Contributor: Ed Hartman, Industrial Waste Supervising Specialist

Virginia is one of the Mid-Atlantic states represented by EPA Region 3. As a state regulatory agency, HRSD incorporates inspection of hazardous storage areas and review of hazardous waste disposal records into our industrial facility inspections. Inspections are conducted as part of our pretreatment program, which was initially approved by EPA in 1981. Although the industries cited below are not in the HRSD service area, the violations noted are indicative of what HRSD inspectors routinely look for during facility inspections at both permitted and nonpermitted industries:

The EPA is seeking a \$137,500 penalty against a brewery for exceeding limits on pH and metals discharge (Cu, Zn, Ni, and Pb) to the local wastewater treatment facility.

The local wastewater treatment plant cited the brewery for 20 violations of its pretreatment permit and ordered the company to install pollution control equipment. The brewery failed to install this equipment and continued to violate its pretreatment permit. According to EPA, discharges from the brewery also caused the local wastewater treatment plant to violate its own Clean Water Act permit limits on biochemical oxygen demand (BOD).

The EPA has cited a company for violating hazardous chemical reporting requirements by failing to immediately notify emergency response agencies about two leaks of hazardous chemicals. EPA also cited the company for operating without a hazardous waste storage permit at its manufacturing plant.

In the first complaint, EPA is seeking a \$151,254 penalty for the untimely reporting of chemical releases in violation of federal laws that require companies to immediately report releases of hazardous substances to the National Response Center and designated state and local emergency officials.

EPA's second complaint is based on an inspection in which EPA found that several employees did not have required hazardous waste training and that two 25- to 35-gallon drums were not properly labeled as hazardous waste (both had been stored for an unknown period of time). For these violations, the company was cited with owning or operating a hazardous waste storage unit without a permit. The proposed penalty for these violations is \$15,840.

A metal-finishing company has agreed to pay a \$30,000 penalty and to take several actions to ensure compliance with federal and state hazardous waste regulations.

According to EPA's complaint, inspections by EPA and state Department of the Environment officials revealed violations of the federal Resource Conservation and Recovery Act (RCRA), which governs the treatment, storage, and disposal of hazardous waste.

EPA alleged that the company operated a hazardous waste storage facility without the required permit, failed to perform required hazardous waste determinations, improperly stored hazardous waste for more than 90 days, failed to properly label and mark hazardous waste containers, stored hazardous wastes in open containers, and failed to comply with other personnel training, contingency plan, and disposal requirements. The hazardous wastes involved in these alleged violations included industrial wastewater sludge, spent cyanide solution, and zinc-plating bath solution.



P2 News and P3 News issues are available online at www.hrsd.com.



Silver BMPs continued from page 1

day of effluent generated. BMPs establish a set of operating procedures designed to reduce the amount of silver discharged to the sanitary sewer through economically viable silver recovery techniques.

The BMPs for silver-imaging facilities are modeled after the *Code of Management Practices for Silver Dischargers* (Silver CMP), developed by the Association of Metropolitan Sewerage Agencies (AMSA) and The Silver Council. The Silver CMP is an EPA-recognized program designed to help POTWs reduce the amount of silver discharged to their wastewater treatment facilities, with a minimum investment of resources.

The Silver CMP has been adopted by POTWs of all sizes in the United States. It has proven successful in (1) reducing the amount of silver

discharged to the wastewater treatment facility, (2) increasing the amount of silver recovered, (3) easing the administrative tasks for both the wastewater treatment facility and silver dischargers, (4) and encouraging water conservation and pollution prevention efforts.

HRSD is pleased to offer silver BMPs as a viable alternative to permit regulations. To help explain BMP requirements, The Silver Council and HRSD hosted two-hour workshops last fall, with more workshops planned March 17-19. For more information about silver BMPs, contact Debbie Crofford at (757) 460-7050 (Southside) or Ed Hartman at (757) 833-1751 (Peninsula).

On The Horizon: NELAC Standards

The Commonwealth of Virginia is developing regulations that establish performance standards for the inspection and operation of environmental laboratories, introduced by the National Environmental Laboratory Accreditation Conference (NELAC). When fully implemented, NELAC standards will provide benefits to both laboratories and regulated industries. *P3 News* will continue to advise our readers, as Virginia proceeds with adopting the NELAC regulations.

For mailing list changes, please contact Joanne Drinan at jdrinan@hrsd.com or (757) 460-4276.

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