

THE CIPCA MONITOR



VOLUME 14, ISSUE 2

JUNE 2014

INSIDE THIS ISSUE:

- Issue: Paint Stewardship 2
- April Tour Recap 3
- A Word from the EPA 4-6
- Upcoming Events 7
- Spent Grain 7

View from the Chair

Dave Cross
CIPCA Chair
St. Vrain Sanitation District

I think everyone at one time or another has seen a plate spinning act. A series of plates are set on top of thin, upright sticks and are spun so that they balance on top of the sticks. As long as the plate is kept spinning, it remains balanced. If the plate stops spinning, it falls. Of course, any self-respecting act will spin multiple plates, just to keep things interesting. This is where the fun begins; watching the performer try to keep each plate spinning while adding yet another plate until there are so many spinning plates that it is nearly impossible to keep them all going.

Running a pretreatment program can be a lot like that, in my experience. Among the “plates” are: user inventory, industrial waste surveys, permitting, sampling, report review, data entry, rec-

ord keeping, FOG control, plan review, public education, and many others. Keeping them all spinning can be a challenge whether it is a one-person show or a team effort. I find that it is not possible to keep them all going at the same speed, and sometimes I have to reprioritize if one starts to wobble. More plates are always being added, too. It may be something I want to do, a new regulatory mandate, or something somebody else asks for, but it seems like the plate count generally increases over time. Depending on how it shakes out, the proposed dental categorical regulations could add significantly to that count.

Thankfully, there are resources available to help us all hone our skills. In addition to the broad array of guidance documents available through

the EPA, organizations like the Region 8 Pretreatment Association, CIPCA, and others, hold training conferences on a regular basis. Watch for further announcements on the CIPCA Fall Conference coming up in early October. This one-day training event will offer a variety of pretreatment topics. Until then, whenever things get hectic, I suggest that you pull up a tune called “[Sabre Dance](#)” to set the mood, and then get back to spinning those plates.



Please direct questions, comments, and submissions to:

mary.paterniti@ci.longmont.co.us

(303) 651-8667

SB029 –The Paint Stewardship Bill

Derik Caudill
Issues Editor
Littleton/Englewood
WWTP

Follow this bill at

<http://legiscan.com/CO/bill/SB029/2014>

Leftover latex paint disposal is a huge cost burden to Municipalities and institutions all across Colorado. Latex paints are often the number one product, by volume and cost, brought by consumers to local Household Hazardous Waste programs for disposal. Currently, these paints are legally disposed of by solidifying the paint and transporting it to the local landfill. This not only puts an undue burden on the landfill, it is also a wasteful practice, as used latex paint can be re-blended and used again. The options for disposal are quite limited and can be frustrating to many consumers. This can lead to the illegal disposal of leftover paints which usually takes the form of dumping the paint down the toilet or into a storm drain. Although latex paints are gen-

erally considered non-hazardous, they do contain four basic components in addition to water:

- Resins – to form a film or coating on the surface
- Solvents - to keep the resins liquefied until the paint is applied
- Pigments - to provide color
- Additives/Fillers – used as driers, thickeners, antimicrobials and anti-foaming agents

Understanding that developing effective, economical programs for the proper management of post-consumer paint is in the best interests of the public, industry and government, the Colorado Senate introduced and passed SB029 (the Paint Stewardship bill) in the 2014 legislative session. This bill requires paint manufacturers to implement a paint management program in Colorado that includes convenient and free locations where con-

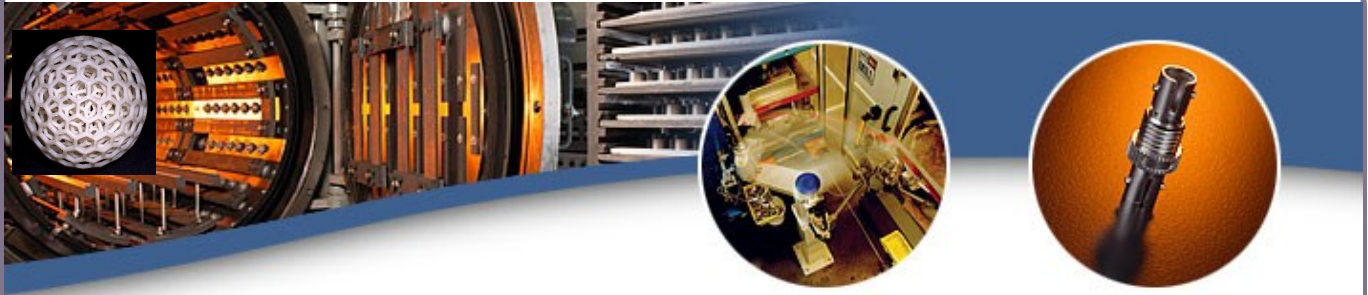
sumers can drop off their leftover paint and have it recycled or disposed of properly. The bill now moves onto the Colorado House Finance Committee.

The Paint Stewardship bill proposes the addition of a fee to each gallon of paint sold in Colorado that will be used to fund paint collection, reuse, recycling, and disposal activities as well as consumer education, outreach and administrative costs associated with the program. The funding for the program is designed to cover the cost of all paint — not just new paint sold, but all the legacy paint already in consumers' basements and garages. This translates into millions of dollars a year in savings to local governments who are currently tasked with managing post-consumer paint wastes. Additionally, this program will provide a legal and free way to dispose of residential and commercial paint waste, relieving the current burden on our waterways.

Become a CIPCA Member Today

<http://www.cipca.org/register.html>

Advanced Forming Technology Tour –April 2014 Tour



Photos courtesy AFT

On April 24, 2014, CIPCA members had the opportunity to tour [Advanced Forming Technology \(AFT\)](#) in Longmont, Colorado.

Founded in 1987, AFT is a global leader in Metal Injection Molding (MIM). MIM is a metalworking process by which powdered metal is mixed with a binder and processed by injection mold forming much like traditional plastic injection molding. The forms are then baked to burn off the binders and create the final all metal product. This process allows intricate parts to be shaped in a single operation and in high volume. We were also fortunate to view an impressive 3D printing lab.

AFT maintains a zero discharge permit under 40 CFR 471.



A Word from the EPA

Al Garcia
U.S. EPA Region 8



Pretreatment Standards and Local Limits Overview of Local Limits

The Pretreatment program has been very successful to minimize or eliminate the impacts of non-domestic pollutants on wastewater treatment plants or in the EPA vernacular, publicly owned treatment works (POTWs). I believe that this is due, significantly because of the efforts put forth by the local Pretreatment programs and their staff to identify, notify, and control non-domestic discharges generated by industrial users. Of course, education of the Industrial Users and listening to their concerns are also important components of the Pretreatment program. The efforts and work ethic of the local Pretreatment programs are the primary reasons why the National Pretreatment program is the most effective environmental program and has seen the most environmental gains since its inception. U.S. Rivers typically don't catch on fire anymore, nor do we see the frequency of POTW/collection system interference and pass through like they used to experience in the 1960's – 1970's.

The General Pretreatment Regulations found in 40 CFR Part 403, establish the responsibilities among EPA, State, Local government, industry, and the public to implement the Pretreatment Standards and Requirements to control non-domestic pollutants that may cause or contribute to pass through, interference or that can contaminate the POTW's biosolids. Without specifically covering all the elements of the Pretreatment regulations (because this is not the scope of this article), the regulations strike a great balance, in my humble opinion, between providing practical and prescriptive standards and requirements while allowing local programs flexibility on the most effective methods of implementation. In other words, it allows the local programs to implement their own style of implementation...as long as their "implementation style" meets the standards.

The local Pretreatment programs cannot effectively implement the regulations without a strong foundation; this includes an updated ordinance/rules and regulations to incorporate Pretreatment Standards

and Requirements in the local community(ies) served by the POTW and development of technically-based local limits. So what does it mean to have technically-based local limits? How do local limits fit within the scheme of other Pretreatment Standards? How are pollutants of concern identified? How are local limits developed and what datasets are necessary? What allocation methods are available to my local program and what is practical? What is the approval process for local limits at the local and EPA level? These are the questions that Stephanie Gieck and I will provide our input and start the discussion in a series of CIPCA articles in the upcoming year.

But first let's start with the local limits overview. The General Pretreatment Regulations found in 40 CFR Part 403 establish Pretreatment Standards for a local program to implement to prevent pass through and interference at the POTW. Keep in mind, a POTW is defined in 40 CFR Part 403.3(q) as the treatment works or wastewater treatment plant which includes sewers, pipes and other conveyances that convey wastewater to your wastewater treatment plant.

EPA developed complementary Pretreatment Standards that are designed to apply control of non-domestic wastewater from IUs, based on different considerations. Some Pretreatment Standards apply a broad level of control on these discharges, others are technology based and are applicable based on the IU's process, while local limits are designed to establish control based on site-specific conditions unique to the POTW. When discussing how these different Pretreatment Standards are designed to be complementary, I use the analogy of a series of umbrellas overlaying each other to ensure protection or a level of control. So let's talk about these different Pretreatment Standards and then discuss how local limits fits in with the other Pretreatment Standards to provide adequate control of non-domestic wastewater to protect the POTW.

General and Specific Prohibitions [40 CFR Part 403.5(a and b)]

The Pretreatment Regulations establish the 1st set of Pretreatment Standards in 40 CFR Part 403.5; these are the General and Specific Prohibitions. These prohibitions apply to each industrial user or IU introducing non-domestic pollutants into a POTW regardless of whether the IU is subject to a categorical Pretreatment Standards or local limit or other local requirements, such as BMP-based oil and grease interceptor control program. The general and specific prohibitions apply a **national level of control** for every IU in the U.S.

§403.5(a)(1) includes the general prohibitions and state “A User may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference.” §403.5(b) include the eight (8) specific prohibitions including the following:

1. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;
2. Pollutants which will cause corrosive structural damage to the POTW, but in no case Discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such Discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;
4. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.
5. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.
6. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
7. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
8. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

Categorical Pretreatment Standards [40 CFR Part 403.6] –

The Categorical Pretreatment Standards are established in separate regulations from the General Pretreatment Regulations but are referenced in 40 CFR Part 403.6. Similar to the general and specific prohibitions, the Categorical Pretreatment Standards establish a national level of control. However, the Categorical Pretreatment Standards are technology-based and are established on a specific industry basis and to economically achieve the greatest pollutant reduction with the model technology used during development.

After identifying and characterizing the industry, EPA identifies the best available technology that is economically achievable for that industry and sets regulatory requirements based on the performance of that technology. These regulatory requirements or Effluent Limitation Guidelines (ELG) do not require facilities to install the particular technology identified by EPA; however, the regulations do require facilities to achieve the effluent limits that were developed based on a particular model technology.

The ELGs are established for both industries that directly discharge to U.S. surface waters and those that “indirectly” discharge to a POTW. The Categorical Pretreatment Standards are established for those IUs that discharge to a POTW and are separately established for IUs in existence when the ELG was developed (**Pretreatment Standards for existing sources or PSES**) and IUs starting after the ELG was developed (**Pretreatment Standards for new sources or PSNS**).

EPA has developed over 50 separate ELGs for IUs ranging from metal finishing facilities to seafood processing; these can be found in 40 CFR Part 405 to Part 471. Not all ELGs have Categorical Pretreatment Standards (PSES or PSNS). Some do not provide limitations and only state that the IU must comply with 40 CFR 403. EPA has a website that lists the ELGs under development and provides overviews of the ELG and available documents supporting the regulations:

<http://water.epa.gov/scitech/wastetech/guide/industry.cfm>



One of the challenges for a local Pretreatment program is to understand the IUs in its service area and determine if any of the ELGs apply to them...job security. I have helped many local programs determine if a particular ELG applies to an industry, sometimes it is not easy, especially trying to interpret if limits or conditions apply in the non-typical ELGs such as the Organic Chemicals, Plastics, and Synthetic Fibers Category found in 40 CFR Part 414. An industry subject to any Categorical Pretreatment Standard is referred to as a Categorical Industrial User or CIU.

Local Limits [40 CFR Part 403.6] –

So far, we have talked about what EPA has established as national Pretreatment Standards but these may not provide sufficient limits or conditions to protect POTWs. Every POTW in the U.S. is unique and has different local concerns; they discharge to a unique segment of a receiving water with varying water quality standards, and they may have different limits on the beneficial use or disposal of the generated biosolids. In addition, the POTW may be a lagoon or a mechanical plant with different wastewater treatment processes or hydraulic capacities. As a result, each POTW has its own pollutants of concern based on the degree that these need to be controlled. Local limits are not established as national Pretreatment Standards but are developed solely for the area that your POTW services.

To use the umbrella analogy, the prohibitions and Categorical Pretreatment Standards apply national protection for your POTW but the local limits are intended to “plug the holes” in the overlaying umbrella layers and ensure protection against pass through and interference. This is where the authority of the local Pretreatment program comes into play. You, as the local program, get to exercise your authority, knowledge, and expertise to determine the pollutants of concern that need control through local limits.

Local limits developed by your program address the specific needs and concerns of a POTW, its sludge, and its receiving waters

and to enforce the general and specific prohibitions. The POTW may need to develop and implement local limits that are more stringent or cover more pollutants than an applicable categorical Pretreatment standard to meet its NPDES permit or sludge quality limits.

The federal regulations at 40 CFR Parts 403.8(f)(4) and 122.21(j)(4) require POTWs to evaluate the need for local limits and, if necessary, implement and enforce specific limits as part of pretreatment program activities. In addition, 40 CFR Part 403.5(c) requires a POTW to develop and enforce specific limits to implement the general and specific prohibitions and to continue to develop these limits as necessary and effectively enforce such limits. Typically, local limits are developed for significant industrial users or those IUs that have a potential to cause or contribute to pass through or interference. 40 CFR Part 403.5(d) states that local limits developed in accordance with 40 CFR 403.5(c) are Pretreatment Standards for the purposes of Clean Water Act, Section 307(d). Therefore, EPA can take enforcement actions against an IU that violates a local limit.

EPA recommends that local limits be technically-based using the Maximum Allowable Headworks Loading (MAHL) approach. The MAHL is calculated for each pollutant by calculating your POTW's allowable headworks loading based on each environmental criterion such as NPDES permit limits, water quality standards for the receiving stream, biosolids limits, collection system criteria, POTW interference limitations, etc. The most stringent allowable headworks loading is the MAHL for that pollutant. The MAHL approach allows POTWs to calculate local limits by carving out the MAHL that is controllable (SIUs or other non-domestic considerations) from that portion that is uncontrollable (residential, inflow and infiltration, commercial, etc.).

Developing and implementing local limits with the MAHL approach requires the following five basic steps: *(These steps and considerations when implementing these steps are the subjects of future CIPCA articles, stay tuned)*

1. Determine the pollutants of concern (POCs)
2. Collect and analyze data
3. Calculate MAHLs for each POC
4. Designate and implement the local limits
5. Address collection system concerns





OUR MISSION: STRIVING TO MAKE THE ENVIRONMENT A CLEANER, SAFER PLACE FOR TODAY'S AND FUTURE GENERATIONS.

Become a CIPCA Member Today

<http://www.cipca.org/register.html>

CIPCA August General Meeting & Tour

To be announced



UPCOMING EVENTS

Interested in CIPCA's upcoming 40 hour HAZWOPER TRAINING?

Email [Dave Cross](mailto:dave.cross@cipca.org) for information

Pacific Northwest Pollution Prevention Resource Center

FOG Prevention

Training for Rural Communities

Summer 2014

Locations in ID, WA, AK

Leadville School

July 21-25, 2014

[More Information- Click Here](#)

[More Information- Click Here](#)

Update on FDA Proposed Rule - Brewery Spent Grain

Mary Paterniti
Newsletter Editor
City of Longmont



In October 2013, the FDA proposed a rule on current good manufacturing practice, hazard analysis and risk-based prevention control for animal feeds. The FDA received many comments on the proposed rule since the regulation would affect spent grain reuse from the brewery industry.

Though breweries do not have categorical pretreatment standards, they are a concern for pretreatment programs. Issues arise from cleaning chemicals (pH), boilers (temperature) and process wastes like spent grains, yeast and beer (TSS and BOD). A common practice to reduce TSS and BOD loading is to segregate the spent grain to avoid disposal to drain. The grain is usually sold as animal feed. (In Longmont, we have a brewery that owns a cattle ranch for the purpose of disposing of their spent grain. The cattle are then processed into burgers sold at their local restaurant.) This is a practical and sustainable disposal option that also benefits the local POTW. Halting or limiting this option would result in increased costs to the brewery for disposal and potential for this wastestream to enter the sewer. The FDA has modified their initial requirements to work with the brewery industry. Grain reuse will be allowed if the brewery develops a written food safety plan to ensure the spent grain is properly stored to avoid contamination. The FDA will propose revised language later this summer and the rule is expected to be adopted in 2015.

For more information, visit: <http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm394991.htm>