

The CIPCA Monitor

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Introduction to the 2011 Board

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The Colorado Industrial Pretreatment Coordinators Association (CIPCA) is an organization expressly for individuals who have a professional relationship within the Industrial Pretreatment profession.



Please send all questions, comments, and especially **submissions** to:

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Chair

Bill Thomas
Industrial Pretreatment Coordinator
City of Loveland
Bill joined CIPCA in 1992. Prior to coordinating the pretreatment program in Loveland he was an Operator at Loveland's WWTP for 10 years.



Co-Chair

Eddie Trevino
Industrial Pretreatment Technician
City of Greeley
Eddie has been an Industrial Pretreatment Technician for the City of Greeley for over 4 years and a member of CIPCA since 2006



Treasurer

Suzanne Renter
Industrial Waste Survey Technician
Metro Wastewater Reclamation District
Suzanne has been employed with the Metro District for the last 8.5 years, with IPT being the last 2.5 years.



Secretary

Al Baker
Lab Supervisor
Centennial Water & Sanitation District
Al has been at Centennial for 26 years and is currently the Supervisor of the water/wastewater lab



Issues

Gerry Fitzgibbons
Industrial Pretreatment Specialist
City of Fort Collins
Gerry has 26 years experience in Industrial Pretreatment with the City of Fort Collins, and has been in CIPCA since its inception.



Education Chair

Lauren Swenson
Environmental Technician
Colorado Springs Utilities
Lauren has 3.5 years of experience with Colorado Springs Utilities' Industrial Pretreatment Program.

Newsletter Editor

Scott Caldwell
IPT Field Specialist
City of Boulder
Scott Caldwell has been the CIPCA newsletter editor for the last year and has been in pretreatment with the City of Boulder for 2.5 years.

Bill Thomas
CIPCA Chair, City of Loveland

Gerry Fitzgibbons
CIPCA Issues, City of Fort Collins

View from the Chair – March 2011

CIPCA's first tour for 2011 went well. The Sinton facility was more exciting than attendees expected. Sinton showed us how they produce milk, cottage cheese, and sour cream, and Mark Webb (Colorado Springs Pretreatment) explained how whey waste is a benefit to the JD Phillips WWTP. See page 3 for more on the tour. Not that I want to rub it in but attendees received an ice cream sandwich after the tour; a fitting treat given the good weather we had that day.

Thanks to all those that responded to the survey. A lot of good suggestions were received and I am positive this will help the Executive Committee plan meetings, tours, and workshops. As you know there is one spring workshop and one fall conference. This leaves four general meetings to have a tour or topic(s) of discussion. The Front Range (Colorado Springs to Fort Collins) seems to be the consensus to hold meetings. However, if you know of a facility outside this area that could be interesting to visit, let the Executive Committee know. Members are willing to pay more in dues, interested in hearing from speakers outside the organization, and learning more about treatment devices. The Executive Committee will do its best to meet everyone's needs.

Can you believe that one fourth of the year has passed already! You think you start a project early, but before you know it the deadline has arrived. By the way, did you submit your annual pretreatment report to Al (Garcia not Baker)? Considering the above, the spring workshop is right around the corner. Given the new events over the past year, the Executive Committee thinks you will find this workshop of interest. Sorry, no samples will be provided. Stay tuned!

Nonylphenol Regulation and Monitoring

On September 23, 2010, the EPA published [Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures; Proposed Rule](#) in the Federal Register. The proposed rule would affect several parts of 40 CFR, including part 136. The changes include approval of two methods for analysis of nonylphenol. The comment period on the proposed rule was initially 60 days and then extended to December 22, 2010.

The Water Quality Control Commission has adopted aquatic life based standards for nonylphenol which went into effect January 1st of this year. The commission stated that it "recognizes the concerns about implementation of the standard expressed by several dischargers. These concerns relate to the potential difficulty of testing, measuring and controlling nonylphenol and its precursors. The Commission is retaining the effective date of January 1, 2011, based on its understanding that the normal permitting process would be followed. Effluent limits would not normally be imposed during the initial round of permit renewals, but monitoring would be required as a first step." The State is now placing monitoring requirements in CDPS permits as they are renewed.

For now, the State is approving ASTM methods 7065 and 7485. These are the methods that EPA lists in the proposed amendments to 136. The state has set practical quantitation limits (PQLs) of 10 µg/l for 7065 and 0.33 µg/l for 7485.

To learn more go to <http://edocket.access.gpo.gov/2010/pdf/2010-20018.pdf> for the proposed amendments to the 136 regulations, and <http://www.cdphe.state.co.us/regulations/wqccregs/100231wqccbasicstandardsforsurfacewaternew.pdf> for the State's standards for surface water.

Sinton Dairy Tour!

Sinton Dairy is one of the oldest businesses still operating in Colorado Springs. As you can imagine much has changed since 1880. We were able to witness technological advancements that allow the Sinton Dairy to produce upwards of 200 million pounds of milk, 9 million pounds of cottage cheese and 3 million pounds of sour cream in addition to other products. A far cry from the 14 quarts of milk from 12 red cows delivered by a horse drawn cart to the residents of Colorado Springs as their website illustrates.

We were shown the in-house laboratory that Sinton uses to quality control all incoming products and the coolers that are used daily to stress test every product and batch leaving their facility. This guarantees that the products you bring into your home are at peak freshness and will last far beyond the expiration date printed on the packaging.

We watched as milk and cottage cheese moves through the production line and are packaged for shipment. We had a first hand opportunity to watch one gallon plastic bottles being formed and tubs of cottage cheese being filled and sealed.

In addition to viewing the processes at this facility, we had a detailed discussion about the benefits of shipping whey to the waste water treatment plant. Whey is a high strength waste by-product that is used beneficially at the Colorado Springs Utilities J.D. Phillips Water Reclamation. A pilot study showed that the addition of whey, a carbon source, caused a small increase in pH, a decrease in nitrate, from 12 to 7, and an increase in alkalinity. Now thirteen 5,000 gallon loads are delivered to the plant weekly. These deliveries help the plant reduce high ammonia levels and achieve a more neutral pH. Creative solutions are abundant in Colorado Springs!

Look for more photos and maybe even a video to be posted to our Facebook page at:

<https://www.facebook.com/pages/Colorado-Industrial-Pretreatment-Coordinators-Association/104808416256698>

Sinton Dairy: <http://www.sintondairy.com/home.html>

What can run but never walks,
Has a mouth but never talks,
Has a bed but never sleeps,
Has a head but never weeps?
Answer on page 5



Cottage Cheese is being processed and packaged.



Above: Vats where cottage cheese is made.
Below: CIPCA members enjoy a tour of Sinton Dairy.



Al Garcia

US EPA Region 8, Water Program Office of
Pollution Prevention / State & Tribal Assistance

Hot off of the presses, a memo was recently sent to all of the EPA Regional Offices on March 17, 2011 regarding the impact of natural gas drilling in Marcellus Shale.

The Marcellus Black Shale is a large formation located in the eastern US in the states of New York, Pennsylvania, West Virginia, Ohio and Maryland. This formation is generally from 50 to 200 feet and is estimated to contain from 50 to 500 trillion, yes trillion, cubic feet of natural gas. The problem in the past was that this formation consists of shale, which was deposited as extremely fine grained sediment with small pore spaces and low permeability which prevents gas from easily migrating.

The natural gas had been relatively inaccessible due to the characteristics of the formation until horizontal drilling and hydraulic fracturing techniques became more refined and cost-effective for the industry. These two processes have allowed shale gas development to move into areas that previously would have been inaccessible. The drilling of shale gas wells includes both vertical and horizontal wells. The horizontal wells provide more exposure to the formation. The hydraulic fracturing technique involves the pumping of a fracturing fluid under high pressure into a shale formation to generate fractures in the target rock formation. This technique allows for the natural gas trapped in the formation (remember, these formations are composed of fine grained sediment with small pore spaces and low permeability) to flow freely into the well.

It takes approximately 3 to 5 million gallons of water to hydraulically fracture a well pad site drilled with horizontal wells in the Marcellus Shale formation. According to estimates in the memo, about 2/3 of the water stays in formation and 1/3 of the water flows out of the well (flowback water). A typical vertical well takes about 1 million gallons of water.

So what happens to this water and why is this important to me, as Pretreatment...you might ask yourself? Well, there is no doubt that the use of this amount of water used during hydraulic fracturing and the generation of this flowback water is challenging for state and EPA permit writers. The typical produced water from these well sites and flowback water from hydraulic fracturing may be discharged to surface waters. These wastewaters are controlled through NPDES permits, issued by the States or EPA.

As you can see in the attached figure, there are also shale gas formations in the Region 8 states, including Colorado. The amount of water needed to complete a shale gas formation well can be substantial. These wastewaters are subject to the Oil and Gas Extraction effluent guidelines found in 40 CFR 435, Subpart C and in Region 8, Subpart E and water quality standards. Subpart C of 435 establishes no discharge of waste water pollutants. However, Subpart E of 435 allows discharge for shale gas wells west of the 98th meridian, IF, the discharge is of good enough quality to be used by agriculture or wildlife water (beneficial use) and is actually used for these purposes. The 98th meridian includes most of Region 8 with the exception of the eastern edges of North and South Dakota.

What if a facility does not produce wastewater of high enough quality to be used beneficially? That is the million dollar question. The other options are to inject underground, recycle/reuse this flowback water, haul or discharge to a POTW or a Centralized Waste Treatment (CWT) facility. Current records from the Colorado Gas Conservation Commission, which approves all new wells in Colorado, show that in 2000, there were 1,529 new drilling permits. These numbers have significantly risen to 6,368 new permits in 2007 and 8,027 new permits in 2008. It appears that the generation of produced water and flowback water from oil and gas wells will be on the rise and this may be an issue for many communities and POTWs in this region.

Continued on Page #5

More on Natural Gas Drilling from the EPA:

Please contact me if you have any questions regarding the acceptance of these wastewaters to your POTW or need a copy of the March 17, 2011 memo regarding Natural Gas Drilling in the Marcellus Shale under the NPDES Program. The memo includes FAQs that will be useful to your Pretreatment program. There will be more discussion on this subject at the 2011 EPA-Region 8 Pretreatment Association Workshop in Bryce Canyon, UT.

NOTE: There is work being done to study hydraulic fracturing. The EPA began studying the impacts of hydraulic fracturing fluids on drinking water sources and groundwater in 2010 and recently submitted this study to the Scientific Advisory Board this month.

<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/index.cfm>.



“Water is life’s matter and matrix, mother and medium. There is no life without water.”
Albert Szent-Gyorgyi, Hungarian Biochemist and 1937 Nobel Prize winner

Answer to the riddle: **A River!**

From various sources including Stephen King’s series, The Dark Tower



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Striving to make the environment a cleaner, safer place for today's and future generations.

www.cipca.org

A Very Special Thank You to the Following:

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CIPCA Chair, City of Loveland

Al Garcia

US EPA Region 8, Water Program Office of Pollution Prevention /
State & Tribal Assistance

Gerry Fitzgibbons

City of Fort Collins PreTreatment Specialist
CIPCA Issues

Without your contributions we would have no Newsletter!

EPA/Region 8 Pretreatment Association Workshop

Once again, it is that time of year to prepare for the Region 8 Pretreatment Association's Annual Workshop! This year the conference will be held in Bryce Canyon, Utah. We would like to encourage all CIPCA members to consider attending if possible. There is no requirement to join the association to attend the workshop. By signing up for the association you will receive all e-mails and other announcements sent out from R8PA.

The EPA/R8PA will host the 2011 Pretreatment workshop from April 26 – 28, 2011 at a cost of \$170.00. The cost of the workshop includes three days of training and select meals.

The 2011 workshop agenda and registration is available online and can be found by following this link:

<http://www.r8pa.com/>

We hope to see everyone at the Region 8 Pretreatment Association Workshop!

Upcoming CIPCA Events

CIPCA has scheduled a general membership meeting followed by a tour of DDi Denver Corporation for Thursday, April 14, at 1:00PM. Some of you may remember touring this categorical metal finishing and printed circuit board manufacturing facility several years ago when the company's name was Coretec Denver, Inc.

Please also stay tuned for more information regarding the CIPCA Spring Conference scheduled for June 8, 2011.

Help Your Editor!!

Now is the time for improving the CIPCA Newsletter and website to better suit the needs of our general membership.

Are you familiar with web site design?
We could use your help!

All ideas are welcomed!
All entries are encouraged!

Please submit articles. Without content,
there is no newsletter, and we are
always willing to showcase new work!

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