



Inside Pretreatment Newsletter

June 13, 2010 (Number 36)

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Mercury and Controlling Dental Discharges
Upcoming Meetings

The next Newsletter will deal with the EPA Methylmercury Implementation Guidance.

Please forward this Newsletter to Other POTWs. Over 930 subscribers.

Up-to-Date News Items

If you have job announcements or other interesting pretreatment news, send them to me or go to www.CWACS.com and email them to me from the “News and Meetings” webpage.

I am currently redoing my website. If there is something that you feel would be useful on the site, please let me know. I am working on organizing my newsletters by topic so it is easier to locate old ones (I have deleted some of the oldest).

Upcoming CWACS Training for POTW Pretreatment Staff

Minneapolis, Minnesota, June 22-23, 2010: Local Limits and Inspecting Industrial Users.
Registration closes **June 16, 2010**.

If you are a state or POTW pretreatment professional and want to host training in your area, please contact CWACS directly.

Are Amalgam Separators Enough for Dental Discharges?

EPA and the ADA believe that voluntary amalgam separator requirements are adequate even where mercury is causing a problem in a POTW effluent. I recently presented a case study where advanced treatment was implemented by a POTW due to NPDES permit effluent violations. A copy of my talk is available at: <http://www.CWACS.com/Newsletters.htm>. The case study involved a POTW that was under enforcement by a state for mercury violations of their NPDES permit. The POTW required dentists to install amalgam separators and implement BMPs. These actions did not result in permit compliance. The POTW could have requested that the state (with EPA approval) for a variance to the mercury standard as other POTWs have done. However, the POTW decided to work with an amalgam separator company to design and require advanced treatment of the dental discharges. Amalgam separators are designed to remove solids. Even with 95%+ removal of mercury that is absorbed to the solids, that still leaves a lot of

mercury being discharged. This POTW recognized that they needed to get in compliance as soon as possible to limit anticipated State issued penalties for the mercury permit violations. The pretreatment staff recognized that influent mercury concentrations must be decreased. To do this, advanced treatment was required for the dentist closest to the POTW headworks. The advanced treatment consisted of ion exchange (polishing) columns on the effluent side of the amalgam separator. The result: Almost consistent compliance with the NPDES permit. As the POTW's dentists that are further away from the POTW headworks install these columns, the pretreatment staff expects even more significant POTW influent and effluent mercury reductions. The compliance data is striking (see the presentation).

Conclusions from this case study:


1. The data demonstrate that reducing mercury at the POTW headworks can and will result in reductions of mercury in the POTW effluent and NPDES permit compliance (protection of the environment).
2. Amalgam separators and BMP implementation alone were not adequate for the POTW to achieve compliance with NPDES permit limits and water quality standards.
3. Laws such as the Michigan Amalgam Separator Law would have prevented the POTW from requiring dentists to reduce mercury to allow for protection of the environment and permit compliance (EPA has notified the State that the law is in conflict with the Clean Water Act but the Agency has yet to set requirements or a timeline or consequences for correcting the problem).

While the polishing columns cost approximately \$3000, the penalty that is being proposed by the State for the NPDES violations would have paid for many amalgam separators, these polishing columns, and their installation!

There is so much happening with mercury control:

- ✓ EPA finalized its Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion in April 2010, <http://www.epa.gov/waterscience/criteria/methylmercury/>
- ✓ The EPA/ADA/NACWA MOU (this has been the target of criticism because it has delayed what is seen as necessary mandatory controls on dental discharges).
- ✓ EPA refused to include dental discharges on the list for Effluent Guidelines.
- ✓ The Michigan Amalgam Separator Law that preempts local pretreatment program authority to control mercury discharges from dental offices.
- ✓ EPA's continued approval of variances to mercury water quality standards without clear and enforceable mercury control program requirements (Great Lakes).
- ✓ May 2010 Congressional Hearing on Dental Mercury and EPA's testimony, you really should watch it (what did you think of EPA's testimony?). See a video of the Hearing: [House Oversight Hearing](#)

If you were a conspiracy theorist (I am not), you may suspect that there was some unspoken relationship between EPA and the ADA that has caused the current EPA Administration, even in the face of science and logic, to continue to be a party to the past Administration's MOU and vigorously defend the stance by the ADA that amalgam separator requirements be voluntary. It is interesting that about the time EPA included amalgam separators as a BMP in a draft of the Methylmercury Implementation Guidance (EPA internal draft document), the ADA just happened to include amalgam separators in its ADA BMPs (about October 2007), something they fought against for years.

 The next newsletter will discuss the EPA Methylmercury guidance. POTWs are cautioned to really pay attention to this new criterion as states attempt to adopt new standards based around this new guidance. The permitting recommendations by EPA regarding implementing these new mercury controls may be of significant concern to many POTWs due to the confusion created in the EPA guidance. EPA, for the first time, is poised to adopt an approach that specifies where a POTW implements BMPs and achieves defined reductions of mercury in its effluent, successful implementation of the BMPs and resultant reductions would constitute a water quality-based effluent NPDES permit limit and compliance with the limit. Potentially complex and negotiated on a permit-by-permit approach: Yes. Will most POTW be required to implement mercury control programs: Yes.

<p>Consortium for Research and Education on Emerging Contaminants (CREEC) RSVP Required. June 24, 2010: Golden, Colorado. For more information: www.CREEC.net</p>	<p>EPA Region 6 Pretreatment Association Annual Pretreatment Workshop August 2-6, 2010 Dallas/Ft Worth, TX www.RegionVIPretreatmentAssociation.org/</p>
<p>CREEC - Emerging Contaminants Workshop September 21-22, 2010 Denver, CO www.CREEC.net</p>	<p>North Carolina Pretreatment Consortium Annual Conference October 3-5, 2010 www.NCPretreatment.org</p>
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<p>Newsletters reflect the opinions of CWACS. They are not intended to change what a specific POTW, state or EPA may require.</p>	
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