

To: Deltoral, Miguel [REDACTED]; Poy, Thomas [REDACTED]; Bair, Rita [REDACTED]; Damato, Nicholas [REDACTED]; Shoven, Heather [REDACTED]; Porter, Andrea [REDACTED]  
From: Crooks, Jennifer  
Sent: Mon 9/28/2015 3:59:05 PM  
Subject: Re: STPB's recommendation on Flint--financials

I thought it was Congressman Kildee, who sent us a Control a couple of weeks ago.

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From: Deltoral, Miguel  
Sent: Friday, September 25, 2015 9:07 AM  
To: Crooks, Jennifer; Poy, Thomas; Bair, Rita; Damato, Nicholas; Shoven, Heather; Porter, Andrea  
Subject: Re: STPB's recommendation on Flint--financials

Has anyone reached out to State Senator Ananich in MI on the filters or is what we are doing (looking for funding) in response to a request from his folks? See excerpt below.

<http://www.metrotimes.com/Blogs/archives/2015/09/24/more-evidence-of-flints-water-problems-found-in-study-of-childrens-blood>

***That statement was issued by Greater Flint Health Coalition CEO Kirk Smith and by state Senate Minority Leader Jim Ananich (D-Flint), who chairs the board of Greater Flint Health Coalition.***

***"The findings released today are alarming," said Ananich in a written statement. "Our top priority has to be doing everything we can and finding every available resource to ensure access to safe water for Flint residents. I will be leading an effort to raise state, private and philanthropic resources to deliver filters and clean water into the community as quickly as possible.***

Miguel A. Del Toral  
Regulations Manager  
U.S. EPA R5 GWDWB  
77 West Jackson Blvd, (WG-15J)  
Chicago, IL 60604  
[REDACTED]

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From: Crooks, Jennifer  
Sent: Thursday, September 24, 2015 03:46 PM

**To:** Poy, Thomas; Bair, Rita; Damato, Nicholas; Shoven, Heather; Deltoral, Miguel; Porter, Andrea  
**Subject:** STPB's recommendation on Flint--financials

This is STPB recommendation to the Front Office on possible use of set-asides to purchase home treatment devices. I told Steve Tom P and I concurred. See highlighted in red below—Flint's poor financial practices. This is what Highland Park was doing, and why they eventually went bankrupt—using water revenues to pay for general public works projects, and not maintaining rates to support O&M of the water system.

Jennifer

**From:** Marquardt, Steve  
**Sent:** Thursday, September 24, 2015 1:39 PM  
**To:** Cossa, Laura  
**Subject:** FW: Flint

Steve Marquardt

USEPA Region 5

77 West Jackson Blvd

Chicago, Illinois 60604



**From:** Baltazar, Debbie  
**Sent:** Thursday, September 24, 2015 1:38 PM  
**To:** Henry, Timothy  
**Cc:** Marquardt, Steve  
**Subject:** Flint

Tim – Here is information regarding use of DWSRF set-asides. We've included information on Flint's financial practices as we think Susan needs to be aware. Perhaps she already knows all this, but I'm not so sure Flint is the community we want to go out on a limb for. At least without a better understanding of where all that money went.

### **Use of DWSRF for in-home filtration**

OW's initial reaction was that in-home filtration would not be an eligible use for the local assistance set-aside. There are not any other known instances of using the set-aside for this purpose. If MDEQ wished to pursue this option, we would need to get a legal opinion on the eligibility before we approved it.

MI typically uses this set-aside mainly for wellhead protection. If it were determined that in-home filtration was an eligible use, MI would have to amend its set-aside workplan and submit that request to us for approval. Note that this may require MI to stop doing currently planned wellhead protection activities in order to free up funds for in-home filtration in Flint depending on the level of funding. Of course, it is entirely up to the state as to whether it wished to pursue this option.

We caution against pursuing this option without carefully studying the entire situation. Concerns have been raised regarding Flint's past management of water and sewer fees collected. The city was in Receivership and is now in the Receivership - Transition Advisory Board Stage. Also, in August, a Genesee Circuit judge issued an injunction requiring Flint to reduce its water and sewer rates by 35%, claiming the city wrongfully transferred \$15.7 million in water and sewer funds in 2007 to help settle a lawsuit involving sewage overflows. Also, there have been articles describing the transfer of water and sewer fees into general revenues. Without knowing the facts of what put in Flint in this position, it seems risky to push the eligibility envelope. Offering this kind of assistance to Flint may not send a good message to all the cities that properly manage their water and sewer fees.

Another concern would be the precedence this could set. Many other older communities have similar problems with lead in pipes. Using the set-aside funds for this purpose in Flint could prompt other communities to request funds to supply their citizens with in-house filtration.

Article on Genesee Circuit Judge's order:

[http://www.mlive.com/news/flint/index.ssf/2015/08/flint\\_ordered\\_to\\_cut\\_water\\_rat.html](http://www.mlive.com/news/flint/index.ssf/2015/08/flint_ordered_to_cut_water_rat.html)

Description of Flint's poor financial practices, including using sewer and water rates for general purposes:

[http://www.michigan.gov/documents/treasury/Flint-PreliminaryReview-9-12-2011\\_417436\\_7.pdf](http://www.michigan.gov/documents/treasury/Flint-PreliminaryReview-9-12-2011_417436_7.pdf)

Debbie Baltazar

Chief, State and Tribal Programs Branch

Water Division

US Environmental Protection Agency

77 W. Jackson Blvd. WS-15J

Chicago, IL 60604

[REDACTED]

[REDACTED]

[REDACTED]



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**EMERGENCY MANAGER  
CITY OF FLINT  
GENESEE COUNTY MICHIGAN**

**ORDER No. 15**

**MAYOR DAYNE WALLING'S INCREASED RESPONSIBILITIES AND  
COMPENSATION**

BY THE POWER AND AUTHORITY VESTED IN THE EMERGENCY MANAGER  
("EMERGENCY MANAGER") FOR THE CITY OF FLINT, MICHIGAN ("CITY")  
PURSUANT TO MICHIGAN'S PUBLIC ACT 436 OF 2012, LOCAL FINANCIAL  
STABILITY AND CHOICE ACT, ("PA 436"); DARNELL EARLEY, THE EMERGENCY  
MANAGER, ISSUES THE FOLLOWING ORDER:

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Pursuant to PA 436, the Emergency Manager has broad powers in receivership to rectify the financial emergency and to assure the fiscal accountability of the City and its capacity to provide or cause to be provided necessary services essential to the public health, safety and welfare; and

Pursuant to PA 436, the Emergency Manager acts in place of local officials, specifically the Mayor and City Council, unless the Emergency Manager delegates specific authority; and

Pursuant to PA 436, the Emergency Manager has broad power to manage the local government, and may issue orders to elected and appointed officials necessary to accomplish the purpose of the Act. An Order issued under PA 436 is binding on the person to whom it is issued; and

Emergency Manager Edward Kurtz assigned additional responsibilities and partially restored compensation to Mayor Dayne Walling by way of Order No. 1, dated April 12, 2013; and

Emergency Manager Darnell Earley further increased Mayor Walling's responsibilities under Order No. 17, dated June 2014; and

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To: Personal Email / Ex. 6  
From: Deltoral, Miguel  
Sent: Thur 7/9/2015 11:28:44 AM  
Subject: Fw: Meeting Request by Paul B. (that public health guy in Milwaukee)

Miguel A. Del Toral  
Regulations Manager  
U.S. EPA R5 GWDWB  
77 West Jackson Blvd, (WG-15J)  
Chicago, IL 60604  


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From: Bair, Rita  
Sent: Wednesday, July 8, 2015 03:37 PM  
To: Deltoral, Miguel  
Cc: Damato, Nicholas; Poy, Thomas  
Subject: RE: Meeting Request by Paul B. (that public health guy in Milwaukee)

Miguel, first my comment about not having the time or money for you to travel to Milwaukee for the presentation was not in any way a repercussion from Flint. Based strictly on the email message from Paul to Lara, I do not see how this specifically relates to the Milwaukee pilot project. First, the message was sent to Lara, not you and is asking broadly for EPA staff who might be able to attend. The main focus appears to be Environmental Justice with a side note about lead in water. Right now I believe there is more important work for you to spend your time on. If they are looking for someone to talk about lead in drinking water, I would suggest we refer them to WDNR or the Milwaukee Water Authority. If you want me to send a message off to Lara I can or if you want to discuss further let me know. However, based on the information I have now, I do not approve your participation in this request.

From: Deltoral, Miguel  
Sent: Wednesday, July 08, 2015 7:29 AM  
To: Bair, Rita  
Cc: Damato, Nicholas; Poy, Thomas  
Subject: Re: Meeting Request by Paul B. (that public health guy in Milwaukee)

Sorry for not explaining. Milwaukee is an ongoing project that was approved by Tom Poy and blessed by WDNR. I told you about this project during the checkins as well as in my performance review, so I am not sure what you intend by your message. It almost sounds like I'm to be stuck in a corner holding up a potted plant because of Flint. One mis-step in 27+ years here and people lose their minds.

We have been working directly with both the Milwaukee Waterworks and Health Departments on how to sample and what PE to provide to residents when they begin the water main replacement. I have already been to Milwaukee (with Tom's/WDNR's blessing) to meet with the water and health folks. This is just a continuation of the process.

This would be a day trip, so no cost except for use of a vehicle. If you are saying I have no time to participate, then I think you should discuss that with Tom Poy and let me know what you decide.

Miguel A. Del Toral

Regulations Manager  
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Chicago, IL 60604  
[REDACTED]

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**From:** Bair, Rita  
**Sent:** Tuesday, July 7, 2015 12:58 PM  
**To:** Deltoral, Miguel  
**Cc:** Damato, Nicholas  
**Subject:** RE: Meeting Request by Paul B. (that public health guy in Milwaukee)

Not sure what the FYI means. Are you asking to go? I don't think we have the time or money for you to participate, but let me know if there is more to this than I see.

**From:** Deltoral, Miguel  
**Sent:** Tuesday, July 07, 2015 11:25 AM  
**To:** Poy, Thomas; Bair, Rita; Damato, Nicholas  
**Cc:** Shoven, Heather; Porter, Andrea; Janczy, Joseph J - DNR  
**Subject:** Fw: Meeting Request by Paul B. (that public health guy in Milwaukee)

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fyi

Miguel A. Del Toral

Regulations Manager  
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Chicago, IL 60604  
[REDACTED]

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**From:** Lasky, Lara  
**Sent:** Tuesday, July 7, 2015 11:02 AM  
**To:** Deltoral, Miguel  
**Subject:** FW: Meeting Request by Paul B. (that public health guy in Milwaukee)

Hi-

Left you a message.

We should chat about this.

Hope you had some nice time off.

Best,

Lara

**From:** Biedrzycki, Paul [mailto:[REDACTED]]  
**Sent:** Tuesday, July 07, 2015 8:59 AM  
**To:** Lasky, Lara  
**Subject:** Meeting Request by Paul B. (that public health guy in Milwaukee)



Hi Lara -

Would you and/or your colleagues be available and interested in coming to Milwaukee to discuss OEJ and associated capabilities available to local public health agencies? I think this would be of benefit to a number of my younger leadership staff here as well as putting into context how OEJ could support the lead in water sampling pilot underway here at the MHD.

Very informal. Coffee or lunch on me! Let me know some dates that would work in the next month or so.

best,

paul b.

Sent from my iPad

Paul A. Biedrzycki, MPH, MBA

Director, Disease Control and Environmental Health

City of Milwaukee Health Department

841 N. Broadway, 3rd Floor

Milwaukee, WI 53202

[REDACTED]

[REDACTED]

Adjunct Faculty

Zilber School of Public Health

University of Wisconsin - Milwaukee

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**To:** Deltoral, Miguel [REDACTED]; Kuefler, Janet [REDACTED]; Crooks, Jennifer [REDACTED]; Bair, Rita [REDACTED]; Damato, Nicholas [REDACTED]; Porter, Andrea [REDACTED]; Shoven, Heather [REDACTED]  
**Cc:** Lopez-Carbo, Maria [REDACTED]  
**From:** Moriarty, Edward  
**Sent:** Wed 7/15/2015 12:31:00 PM  
**Subject:** RE: Flint Discussion

Morning!

Before the volume of this email string gets out of hand could we have a conference call? Maria and I would like to discuss. We try to keep our calendars updated.

Ed

Ed Moriarty - Team Lead

OGWDW - Protection Branch

1200 Constitution Ave., NW

Washington, DC 20460

[REDACTED]


**From:** Deltoral, Miguel  
**Sent:** Wednesday, July 15, 2015 7:24 AM  
**To:** Kuefler, Janet; Crooks, Jennifer; Bair, Rita; Damato, Nicholas; Porter, Andrea; Shoven, Heather  
**Cc:** Moriarty, Edward  
**Subject:** Re: Flint Discussion

I very much disagree with not issuing a TT violation here. If you open this door for Flint (i.e., new source = new system), other systems elsewhere inside/outside R5 are going to want the same treatment. I am copying Ed Moriarty on this as I think we need an OGWDW/OGC review if we are considering NOT issuing a TT violation for failure to install/maintain OCCT as it will set a very bad precedent and could cause problems in other R5 states and regions.

The advanced notification and approval requirements in the LCR for long-term treatment changes and new sources were intended to make systems think about these source water and treatment transitions carefully so that they plan the transition accordingly and don't increase lead/copper levels.

I know it's a tough situation, and I agree that our primary focus should be on moving forward, but at a minimum we need to have a discussion with OGWDW and OGC on this.

Miguel A. Del Toral

Regulations Manager  
U.S. EPA R5 GWDWB  
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Chicago, IL 60604  


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**From:** Kuefler, Janet  
**Sent:** Monday, July 13, 2015 04:59 PM  
**To:** Crooks, Jennifer; Bair, Rita; Damato, Nicholas; Deltoral, Miguel; Porter, Andrea; Shoven, Heather  
**Subject:** RE: Flint Discussion

I agree with Jen's last sentence. I think focusing on what the system and local health department, or TSC-Cincy experts or CDC can do in the short term to assess the extent of the issue and offer remediation options that can be quickly implemented, if needed, is a sound approach.

I am not certain of the regulatory applicability related to previous consecutive systems, which can come to agreement with the parent system about who does what, and how this scenario applies to the former consecutive system for things like installation and maintenance of corrosion control (since the installation was not done by the former consecutive system.) Can we ask HQ if they know of other systems like this, or maybe this has been done already. I am still catching up on email.

Thanks,

Janet Kuefler

Ground Water and Drinking Water Branch

State Programs Team Leader

United States Environmental Protection Agency, Region 5

77 West Jackson Blvd. (WG-15J)

Chicago, Illinois 60604

[REDACTED]

[REDACTED]

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**From:** Crooks, Jennifer

**Sent:** Thursday, July 09, 2015 3:45 PM

**To:** Bair, Rita; Damato, Nicholas; Deltoral, Miguel; Porter, Andrea; Kuefler, Janet; Shoven, Heather

**Subject:** RE: Flint Discussion

Rita—you asked at our July 1 meeting that we provide you with any comments related to your write-up to summarize this situation with Flint, or from our meeting.

I had a discussion with Miguel earlier this week, and it seems more apparent that Flint may have violated the LCR by not maintaining corrosion control after being optimized back in the early 1990's (since they were a customer of Detroit). MDEQ did not tell Flint to maintain corrosion control; instead, they treated the change in source water as a new system. I'll bet that the State will take this personally since they are responsible for the City of Flint's actions; which isn't a bad thing, but they may get VERY defensive. We can get into the weeds and explain in detail the intent of the rule and our interpretation of the rule and why the State must issue a TT violation, but in the end; the City, the State and we must move forward TOGETHER to correct this problem. We have resources in Mike Schock and Darren Lytle and Mike Wright; and we want to work with the State and the City to address ALL of the contaminant issues going on in Flint; bacti, TTHMs, Legionella, lead—from a wholistic approach to get some form of corrosion control working that doesn't minimize treatment for bacti or TTHMs. It doesn't make sense to discuss with the State what happened in the past; we need to move forward and work with the State as our partner; as the State sees the lead levels climbing, I don't see the benefit in rubbing their nose in the fact that we're right, and they're wrong.

If the State/City agree to issue public education on how citizens must properly flush their taps, I'm wondering what the benefit would be to force the State to issue a TT violation to Flint.

Regarding the State's protocol of pre-flushing, Miguel said earlier this week on the phone with me that pre-flushing didn't really make that much difference in the lead levels when the City was using Detroit water, since there was scale existing on the inside of the lead pipes. Now that the scale appears to be disappearing, the lead levels are starting to rise even with pre-flushing being conducted prior to sampling. Yes, the levels would probably be higher without the pre-flushing, but the City may exceed the Action Level even with the pre-flushing. Maybe the issue of the State's use of pre-flushing is moot at this point; perhaps we need to focus our energy on getting the State and City to accept our offer of Darren and Mike's participation in a wholistic approach to starting corrosion control and implementing public education for lead.

Jennifer

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**From:** Bair, Rita

**Sent:** Wednesday, July 01, 2015 8:32 AM

**To:** Damato, Nicholas; Crooks, Jennifer; Deltoral, Miguel; Porter, Andrea; Kuefler, Janet; Shoven, Heather

**Subject:** RE: Flint Discussion

I have been trying to wrap my brain around all the Flint issues and developed the attached

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summary that I thought I'd share for the meeting. Our objective for the meeting is to discuss the status of Flint, what are all the current issues are, and to all agree on next steps and messaging. If you have other objectives for the meeting please bring those up first thing at the meeting.

<< File: Flint Summary of Issues.docx >>

-----Original Appointment-----

**From:** Bair, Rita

**Sent:** Monday, June 29, 2015 12:29 PM

**To:** Bair, Rita; Damato, Nicholas; Crooks, Jennifer; Del Toral, Miguel; Porter, Andrea; Kuefler, Janet; Shoven, Heather

**Subject:** Flint Discussion

**When:** Wednesday, July 01, 2015 9:00 AM-10:00 AM (UTC-06:00) Central Time (US & Canada).

**Where:** R5Metcalf-ConfRm-R1515B/R5-Metcalf-15th-Floor

**To:** Poy, Thomas [REDACTED] Bair, Rita [REDACTED] Damato, Nicholas [REDACTED]  
**Cc:** Glowacki, Joanna [REDACTED] Porter, Andrea [REDACTED]; Shoven, Heather [REDACTED]  
**From:** Deltoral, Miguel  
**Sent:** Tue 9/22/2015 12:06:37 PM  
**Subject:** Fw: Pediatrician's blood lead study and City of Flint response. FYI

This is no surprise. lead lines + no treatment = high lead in water = lead poisoned children.

You have a city that has lead lines and no treatment that is collecting pre-flushing which we know can easily miss very high lead levels. We do nothing to stop that.

We have an independent group taking samples that show much higher lead levels and what do people do? They question the VT data, rather than saying anything about the City's data from sampling that we know can miss the lead and on top of that we just found out that the city may have lied on the reporting forms to DEQ in stating that all of the sites they used had lead service lines when they apparently do not have any information that they could possibly have used to make those determinations. To mean that means you have to throw out both rounds of data unless they can provide the supporting documentation. And since they admitted they do not have it, what do we do? Nothing again?

I can't recall what R5 decided on the MI disinvestments, but I very seriously hope that we did not allow MDEQ NOT to issue violations for failure to submit the LCR reporting forms. It is only by way of having these forms from Flint that we became aware that what they reported for each of the monitoring sites is not true. If I am a lawyer, and someone puts down on a form that every site is a lead line site, and they cannot produce a single piece of information that they used to make the determination that they are lead line sites...isn't that false reporting at a minimum? And when all of this results in a town full of lead-poisoned children, doesn't that mean anything to anyone?

Even worse, absent anything from EPA, MDEQ and the City, other than 'they are in full compliance' other folks have to alert the public to the risk. We now have data from yet another independent group that appears to show that the children are in fact, being poisoned.

At every stage of this process, it seems that we spend more time trying to maintain State/local relationships than we do trying to protect the children. I said this from the very beginning and I will say this again...you don't have to drop a bowling ball off of every building in every city to prove that gravity (and science) will work the same way everywhere. It's basic chemistry.



There is nothing that can be done in the immediate future with respect to treatment that can prevent more children from being further damaged. Someone needs to require that the residents of Flint be provided with water filters until they can fix the treatment.

Sorry for the rant, but I am very upset about this because I told people this was going to be the outcome. I watched this movie before in Washington, DC. and we are heading down the exact same path of denial and delay and meanwhile, the children are being irreparably damaged.

Miguel A. Del Toral  
Regulations Manager  
U.S. EPA R5 GWDWB

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**From:** Marc Edwards - [REDACTED]  
**Sent:** Monday, September 21, 2015 04:49 PM  
**To:** Schock, Michael; Lytle, Darren; Burneson, Eric; [REDACTED] Murphy, Thomas; Shoven, Heather; Deltoral, Miguel  
**Subject:** Pediatrician's blood lead study and City of Flint response. FYI

Pediatrician's from Hurley medical center gave a medical briefing to the mayor, Croft and the City administrator about their blood lead data today.

To summarize what they found, they compared incidence of EBL (> 5 ug/dL) in the time period before and after the switch using their in-house data. Basically repeating my DC Lead study from 2009 methods.

For infants < 15 months, here is what they found.

- 1) Non-flint residents no change (0.5% pre vs. 0.5% post).
- 2) The two zip codes where we found the highest lead in water, EBL rose from 1.5% pre-switch to 4.4% after the switch.
- 3) For the rest of Flint (lower risk zip codes) the EBL incidence rose from 0.6 to 1.1%.

- 4) For all children less than 5 years old, EBL rose from 2.1% switch to 4.0% post-switch ( $p < 0.05$ )
- 5) For all children less than 5 years old, EBL rose from 2.5% pre-switch to 6.3% post-switch in the zip codes with highest water lead risk ( $p < 0.05$ ).

The person said I could tell you the following. What follows are her exact words, not mine. I did put the red underline emphasis in there.

"The meeting included the mayor, Croft, city administrator, sen ananich and doctors. The city folks had a meeting this am with DEQ and EPA who gave them a blessing that they were in compliance with everything - they said all the water experts this am said their is no "corrosivity" issue.

We pushed for a health advisory - even something saying "we are in compliance, but we don't know everything, we want to be safe, follow these precautions. "That would enable mobilization of additional resources. They seemed receptive to that. ?? I'm not sure what will happen - mayor is going to dc this week to see EPA? Croft said he has been sharing information with you. they are not blaming the water source, they are blaming sitting water and old pipes....they said population has decreased and more water is sitting."

The pediatrician's information is below. She said you could call her to verbally confirm what was said at the meeting.

Her cell phone is: **Personal Phone / Ex. 6**

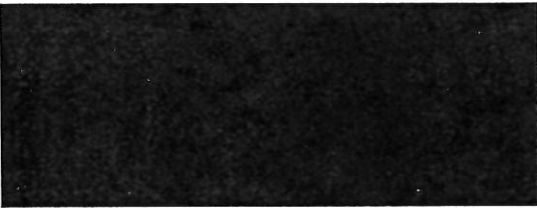
Mona Hanna-Attisha MD MPH

Director, Pediatric Residency Program

Hurley Children's Hospital at Hurley Medical Center

Assistant Professor, Department of Pediatrics and Human  
Development

Michigan State University College of Human Medicine



Date Signed: November 3, 2015


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF WATER

NOV 03 2015

**MEMORANDUM**

**SUBJECT:** Lead and Copper Rule Requirements for Optimal Corrosion Control Treatment for Large Drinking Water Systems

**FROM:** Peter C. Grevatt, Director  
Office of Ground Water and Drinking Water 

**TO:** EPA Regional Water Division Directors, Regions I-X

This memorandum addresses certain concerns raised about the application of the 1991 Lead and Copper Rule, specifically the requirements pertaining to maintenance of optimal corrosion control treatment, in situations in which a large water system ceases to purchase treated water and switches to a new drinking water source. These concerns have been raised most recently in regard to the drinking water system in Flint, Michigan, where the water system was disconnected from the Detroit Water and Sewerage Department, which provided corrosion control treatment for Lake Huron source waters, and instead began distributing water from the Flint River. This type of situation rarely arises and the language of the LCR does not specifically discuss such circumstances. After reviewing the rule with our Office of General Counsel, it appears that there are differing possible interpretations of the LCR with respect to how the rule's optimal corrosion control treatment procedures apply to this situation, which may have led to some uncertainty with respect to the Flint water system. This memorandum clarifies how the LCR applies to this situation and eliminates the uncertainty for water systems and primacy agencies that may face these circumstances in the future.

It is important for large systems and primacy agencies<sup>1</sup> to take the steps necessary to ensure that appropriate corrosion control treatment is maintained at all times, thus ensuring that public health is protected. This memorandum focuses on those steps and clarifies, on a prospective basis, how EPA interprets the LCR corrosion control requirements and how primacy agencies should apply these requirements to large public water systems before, during and after making a significant change in source water, including switching from purchased water to a new source.

Under the LCR, all large systems (those serving more than 50,000 persons), whether purchasing water or not, must have completed a series of steps to either optimize the corrosion control treatment or be deemed to have optimal corrosion control treatment (OCCT) by 1998. 40 CFR 141.81. Key steps for

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<sup>1</sup> The term "primacy agency" refers to the State, tribe or U.S. Environmental Protection Agency regional office having jurisdiction over, and primary enforcement responsibility for, a given public water system.

optimizing corrosion control include monitoring, corrosion control studies, installation of treatment, follow-up sampling and specification by the primacy agency of water quality parameters (WQPs) for monitoring corrosion control. The LCR requires any large system that has met the OCCT requirements through the installation of corrosion control treatment to continue operating and maintaining the treatment and to continue meeting the WQPs established by the primacy agency. 40 CFR 141.81(b) and 141.82(g). Systems deemed to have OCCT without the installation of corrosion control treatment are not subject to this requirement. However, they are required to notify the primacy agency in writing of any upcoming changes in treatment or source and request that the primacy agency modify its determination of the OCCT and WQPs applicable to the system. The primacy agency must then review and approve the change and designate OCCT and WQPs prior to its implementation by the system. 141.81(b)(3). Similarly, systems subject to reduced monitoring or monitoring waivers must notify the primacy agency of any upcoming changes in treatment or source and the primacy agency must subsequently review and approve it. EPA recommends that systems that are not subject to a notification requirement also notify the primacy agency prior to the addition of a new source or treatment and request the primacy agency to modify its determination of the optimal corrosion control and WQPs applicable to the system.

Due to the unique characteristics of each PWS (e.g., source water, existing treatment processes, distribution system materials) it is critical that public water systems, in conjunction with their primacy agencies and, if necessary, outside technical consultants, evaluate and address potential impacts resulting from treatment and/or source water changes. It is also critical for public water systems to conduct ongoing monitoring to ensure compliance with OCCT prior to, during and after a source or treatment change. The rearrangement of a system's existing configuration may trigger the need for OCCT adjustments and establishment of appropriate WQPs. Primacy agencies should work with systems that plan to disconnect from a supplier that had installed corrosion control treatment to determine the OCCT for the new source and establish WQPs for that treatment instead of using the OCCT and WQPs established for the previous source. This will allow a system that ceases to purchase treated water to stay in compliance with any applicable requirements pertaining to OCCT and ensure protection of public health during and after the change in source. EPA has developed a guidance manual<sup>2</sup> specifically focusing on evaluation of corrosion control treatment options and optimization of full-scale treatment to assist water systems and primacy agencies with these efforts. EPA is currently preparing an updated version of the manual, which we anticipate will be released in February 2016.

The key to identifying and mitigating potential problems is to ensure effective collaboration between the public water system and the primacy agency. Corrosion control treatment can come in many forms. For this reason, it is important to conduct a system-wide assessment prior to any source water and/or treatment modifications and to identify existing or anticipated water quality, treatment or operational issues that may interfere with or limit the effectiveness of corrosion control treatment optimization or re-optimization.

If you have additional questions or concerns, please contact me or have your staff contact Maria Lopez Carbo, Chief of the Protection Branch, in the Office of Ground Water and Drinking Water, at [lopez-carbo.maria@epa.gov](mailto:lopez-carbo.maria@epa.gov).

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<sup>2</sup> U.S. Environmental Protection Agency, *Lead and Copper Rule Guidance Manual, Volume II: Corrosion Control Treatment*. Office of Water, EPA 811-B-92-002, 1992. Available at: <http://nepis.epa.gov/Exec/ZipPDF.cgi?Dockey=91019DM4.txt>.