From:	Keener, Bill
To:	Calvino, Maria Soledad
Cc:	Amato, Paul
Subject:	FW: MONICA ACTION: RESPONSE: THE RECORD (STOCKTON, CA); Chloramines
Date:	Thursday, January 21, 2016 12:37:20 PM

Bill Keener
Office of Public Affairs
U.S. EPA - Region 9
San Francisco, CA
Phone: (415) 972-3940

From: Zito, Kelly
Sent: Thursday, January 21, 2016 12:33 PM
To: Keener, Bill ; Amato, Paul
Subject: Fwd: MONICA ACTION: RESPONSE: THE RECORD (STOCKTON, CA); Chloramines

Can you guys loop in on this?

Sent from my iPhone

Begin forwarded message:

> **From:** "Lee, Monica" <Lee.Monica@epa.gov>
> **Date:** January 21, 2016 at 12:25:23 PM PST
> **To:** "Jones, Enesta" <Jones.Enesta@epa.gov>, "Schollhamer, Mary" <Schollhamer.Mary@epa.gov>, "Abrams, Dan" <Abrams.Dan@epa.gov>
> **Cc:** "Daguillard, Robert" <Daguillard.Robert@epa.gov>, "Loop, Travis" <Loop.Travis@epa.gov>, "Zito, Kelly" <ZITO.KELLY@EPA.GOV>
> **Subject: RE: MONICA ACTION: RESPONSE: THE RECORD (STOCKTON, CA); Chloramines**
>
> + Dan since I won't have a chance to look.
>
> **From:** Jones, Enesta
> **Sent:** Thursday, January 21, 2016 3:24 PM
> **To:** Schollhamer, Mary <Schollhamer.Mary@epa.gov>; Lee, Monica <Lee.Monica@epa.gov>
> **Cc:** Daguillard, Robert <Daguillard.Robert@epa.gov>; Loop, Travis <Loop.Travis@epa.gov>; Zito, Kelly <ZITO.KELLY@EPA.GOV>; Jones, Enesta <Jones.Enesta@epa.gov>
> **Subject:** Re: MONICA ACTION: RESPONSE: THE RECORD (STOCKTON, CA); Chloramines
>
> GTG?
>
> **Enesta Jones**
> U.S. EPA, Office of Media Relations
> **Desk:** 202.564.7873
> **Cell:** 202.236.2426
>
> On Jan 21, 2016, at 2:05 PM, Jones, Enesta <Jones.Enesta@epa.gov> wrote:
>
> > Thanks Mary. Monica, GTG?

Enesta Jones
U.S. EPA, Office of Media Relations
Desk: 202.564.7873
Cell: 202.236.2426

On Jan 21, 2016, at 2:02 PM, Schollhamer, Mary
<Schollhamer.Mary@epa.gov> wrote:

> Hi Enesta, Please see below. Thanks!
> Mary G Schollhamer
> Acting Deputy Director of Communications
> Office of Water
> U.S. Environmental Protection Agency
> Office: 202-564-5759
> Mobile: 202-853-5317
> schollhamer.mary@epa.gov
> Request: "Our city is switching from chlorine disinfectant to chloramines, and it has suddenly become quite controversial. I'm trying to track down the latest and best science on chloramines, but the EPA guidance document that I found tonight dates back to 1994: http://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=2829&CFID=44537175&CFTOKEN=48964464 Would someone possibly be able to tell me whether any more current studies have been done? Not sure if this is a question best put to headquarters to to Region 9 staff, but maybe you can point me in the right direction."
>
> Response: Below are some additional resources on chloramines the EPA is aware of.
>
> - AWWA (American Water Works Association) Research Foundation. 2004. Optimizing Chloramine Treatment. Second Edition.
> - Cohle, S.D., W. Thompson, B.H. Eisenga, and S.L. Cottingham. 2001. Unexpected death due to chloramine toxicity in a woman with a brain tumor. Forensic Science International. 124: 137–139.
> - Environment Canada. 2001. Canadian Environmental Protection Act. Priority Substances List Assessment Report: Inorganic Chloramines. Health Canada. March.
> - Flannery B., L.B. Gelling, D.J. Vugia, J.M. Weintraub, J.J. Salerno, M.J. Conroy, V.A. Stevens, C.E. Rose, M.R. Moore, B.S. Fields, and R.E. Besser. 2006. Reducing Legionella colonization of water systems with monochloramine. Emerg. Infect. Diseases, 12(4):

588–596.

? Fluck, S., W. McKane, T. Cairns, V. Fairchild, A. Lawrence, J. Lee, D. Murray, M. Polpitiye, A. Palmer, and D. Taube. 1999. Chloramine-induced haemolysis presenting as erythropoietin resistance. Nephrol. Dial. Transplant. 14: 1687–1691.

? Guo, T.L., D.R. Germolec, B.J. Collins, R.W. Luebke, W. Auttachoat, M.J. Smith, and K.L. White, Jr. 2011. Immunotoxicological profile of chloramines in female $B_6C_3F_1$ mice when administered in the drinking water for 28 days. J. Immunotoxicol. 8:381-388.

? Health Canada. 1995. Chloramines. October. Available at: http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/water-eau/doc-sup-appui/chloramines/chloramines_e.pdf

? Health Canada. 2001. Inorganic Chloramines. Priority Substances List Assessment Report. Canadian Environmental Protection Act, 1999. Environment Canada. March. http://www.hc-sc.gc.ca/ewh semt/alt_formats/hecs-sesc/pdf/pubs/contaminants/psl2-lsp2/inorg_chloramines/chloramines-eng.pdf . (accessed June 1, 2008).

? Héry, M., G. Hecht, J.M. Gerber, J.C. Gendre, G. Hubert, and J. Rebuffaud. 1995. Exposure to Chloramines in the Atmosphere of Indoor Swimming Pools. Ann. Occu. J. Hyg, 39(4): 427–439.

? Hiramatsu, K., T. Ogino, M. Ozaki, and S. Okada. 2006. Monochloramine inhibits ultraviolet B-induced p53 activation and DNA repair response in human fibroblasts. Biochimica et Biophysica Acta. 1763: 188–196.

? Jacobs, J.H., S. Spaan, G.B.G.J. van Rooy, C. Meliefste, V.A.C. Zaat, J.M. Rooyackers, and D. Heederik. 2007. Exposure to trichloramine and respiratory symptoms in indoor swimming pool workers. European Respiratory Journal. 29: 690–698.

? Junglee, N.A., S.U. Rahman, M. Wild, A. Wilms, S. Hirst, M. Jibani, and J.R.C. Seale. 2010. When pure is not so pure: chloramine-related hemodialysis patients. Hemodialysis Int. 14:327-332.

? Kaydos-Daniels, S.C., M.J. Beach, T. Shwe, J. Magri, D. Bixler. 2008. Health effects associated with indoor swimming pools: a suspected toxic chloramine

exposure. Public Health. 122(2): 195-200.
? Klamt, F., and E. Shacter. 2005. Taurine Chloramine, and Oxidant Derived from Neutrophils, Induces Apoptosis in Human B Lymphoma Cells through Mitochondrial Damage. J. Biol. Chem. 280(22): 21346–21352.
? Kool, J., J.C. Carpenter, and B.S. Fields. 1999. Effect of monochloramine disinfection of municipal drinking water on risk of nosocomial Legionnaires' disease. The Lancet. 353:272-77.
? Pascuzzi, T.A., and A.B. Storrow. 1998. Mass casualties from acute inhalation of chloramine gas. Military Medicine. 163 (2): 102–104.
? Pasternak, J.P., D.R.J. Moore, and R.S. Teed. 2003. An ecological risk assessment of inorganic chloramines in surface water. Human and Ecolog. Risk Assess. 9(2): 453–482.
? Poon, R., P. Lecavalier, H. Tryphonas, G. Bundy, M. Chen, I. Chu, A. Yagminas, V. Valli, M. D'Amour, and B. Thomas. 1997. Effects of Subchronic Exposure of Monochloramine in Drinking Water on Male Rats. Regulatory Toxicology and Pharmacology, 25: 166–175.
? Shibata, H., Y. Sakamoto, M. Oka, and Y. Kono. 1999. Natural Antioxidant, Chlorogenic Acid, Protects Against DNA Breakage Caused by Monochloramine. Biosciences Biotechnology Biochemistry. 63 (7): 1295–1297.
? Suzuki, H., M. Mori, M. Suzuki, K. Sakurai, S. Miura, and H. Ishii. 1997. Extensive DNA damage induced by monochloramine in gastric cells. Cancer Letters. 115: 243–248.
? Thickett, K.M., J.S. McCoach, J.M. Gerber, S. Sadhra, and P.S. Burge. 2002. Occupational asthma caused by chloramines in indoor swimming-pool air. Eur Respir J. 19: 827–832.
? Vikesland, P.J., K. Ozekin, and R.L. Valentine. 2001. Monochloramine decay in model and distribution system waters. Water Research 35(7): 1766–1776.
? WHO (World Health Organization). 2004. Background document for development of WHO *Guidelines for Drinking-water Quality*: Monochloramine in drinking-water. WHO/SDE/WSH/03.04/83. Geneva, Switzerland.
? Zhu, Y., Y. Lu, and X. Tan. 2003. Monochloramine

induces reorganization of nuclear speckles and phosphorylation of SRp30 in human colonic epithelial cells: role of protein kinase C. Am. J. Physiol. – Cell Physiol. 285: C1294–C1303.

? Stage 1 Federal Register Notice: Vol 59, No 145, page 38668, Friday July 29, 1994

? Stage 2 Federal Register Notice: Vol 71, No 2, page 388, Wednesday January 4, 2006

From: Daguillard, Robert
Sent: Wednesday, January 20, 2016 2:23 PM
To: Schollhamer, Mary <Schollhamer.Mary@epa.gov>
Cc: Loop, Travis <Loop.Travis@epa.gov>; Lee, Monica <Lee.Monica@epa.gov>; Zito, Kelly <ZITO.KELLY@EPA.GOV>
Subject: RE: MARY ACTION: DDL TBD; THE RECORD (STOCKTON, CA); chloramines

Follow-up from the reporter. + Kelly (R9) for awareness. More reporting is likely with next week's celebrity visit:

"Well, here's the thing, Erin Brockovich is coming to town early next week and I've got to put some science out there before she comes (we're going to have to publish this weekend).

That having been said, I'm casting a very wide net on this and have gotten some good info from outside experts/other agencies. So it's probably not the end of the world if you're not able to respond this week. Whatever EPA is eventually able to provide will help inform our future reporting on the subject.

Thank you!"

Robert Daguillard
Office of Media Relations
U.S. Environmental Protection Agency
Washington, DC
+1 (202) 564-6618 (o)
+1 (202) 360-0476 (cel)

From: Schollhamer, Mary
Sent: Wednesday, January 20, 2016 1:52 PM
To: Daguillard, Robert <Daguillard.Robert@epa.gov>
Cc: Loop, Travis <Loop.Travis@epa.gov>; Lee, Monica <Lee.Monica@epa.gov>
Subject: RE: MARY ACTION: DDL TBD; THE RECORD (STOCKTON, CA); chloramines

Thanks, Robert. I agree that we should push the deadline to Monday. Our folks are swamped and could use the time.

Mary G Schollhamer

Acting Deputy Director of Communications
Office of Water
U.S. Environmental Protection Agency
Office: 202-564-5759
Mobile: 202-853-5317
schollhamer.mary@epa.gov

From: Daguillard, Robert
Sent: Wednesday, January 20, 2016 1:18 PM
To: Schollhamer, Mary <Schollhamer.Mary@epa.gov>
Cc: Loop, Travis <Loop.Travis@epa.gov>; Lee, Monica <Lee.Monica@epa.gov>
Subject: MARY ACTION: DDL TBD; THE RECORD (STOCKTON, CA); chloramines

This writer has already written about the topic – and about Erin Brockovich's Facebook posting on same. Other stories by different outlets here and here. With the bad weather coming our way, I'll ask him to push his deadline back until next week, unless you think we can get him something by tomorrow COB. Let me know.

Thanks, R.

Robert Daguillard
Office of Media Relations
U.S. Environmental Protection Agency
Washington, DC
+1 (202) 564-6618 (o)
+1 (202) 360-0476 (cel)

From: Breitler, Alex
Sent: Wednesday, January 20, 2016 1:11 PM
To: Daguillard, Robert <Daguillard.Robert@epa.gov>
Subject: Re: chloramines

Thanks for responding!

I don't know where to even begin in telling you what people are saying. My sense is that the biggest local concern at the moment is the possibility of chloramines causing corrosion in the pipes, in light of what is happening in Flint. But I'm getting the whole gamut of questions that you all have likely heard before -- perceived public health impacts, "if the water is toxic for fish how can it be OK for me," etc etc.

So yes, I'm interested in both EPA and non-EPA studies -- whatever your folks think are most pertinent to educate a community on this subject.

I know this is kind of broad, but thanks for anything you can do. Sometime this week would be great if you can

swing it.

Thanks again,

Alex

On Wed, Jan 20, 2016 at 6:16 AM, Daguillard, Robert <Daguillard.Robert@epa.gov> wrote:

> Yes, we're happy to help. How will the information we send you fit into your larger story? I assume you've spoken to others? If so, have they made comments you'd like us to respond to?
> Also and since you want to write about the science on chloramines, I assume you're looking for the latest studies generally and not just by EPA scientists, right?
> Last but not least, what's your deadline?
> Thanks, R.
> Robert Daguillard
> Office of Media Relations
> U.S. Environmental Protection Agency
> Washington, DC
> +1 (202) 564-6618 (o)
> +1 (202) 360-0476 (cel)
> **From:** Breitler, Alex
> **Sent:** Wednesday, January 20, 2016 2:24 AM
> **To:** Daguillard, Robert <Daguillard.Robert@epa.gov>
> **Subject:** chloramines
> Hi Robert,
>
> My name is Alex Breitler. I'm a reporter with The Record newspaper out in Stockton, CA.
>
> Our city is switching from chlorine disinfectant to chloramines, and it has suddenly become quite controversial. I'm trying to track down the latest and best science on chloramines, but the EPA guidance document that I found tonight dates back to 1994: http://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=2829&CFID=44537175&CFTOKEN=48964464
>
> Would someone possibly be able to tell me whether any more current studies have been done? Not sure if this is a question best put to headquarters to to Region 9 staff, but maybe you can point me in the right direction.
>
> Thanks,
> Alex

--
Alex Breitler
reporter