

Shekter Smith, Liane (DEQ)

From: London, Bob (DEQ)
Sent: Wednesday, October 14, 2015 1:12 PM
To: Bloemker, Jon (DEQ); Shekter Smith, Liane (DEQ); Benzie, Richard (DEQ)
Subject: Bay City/Bay Area WTPs, Lead and Copper history
Attachments: BayCityPbCu.xlsx

Jon,

Attached is a printout of lead and copper 90th percentile results since 2004. That's as far back as they are entered in SDWIS. Rebecca offered to get you the 2000-2004 data if you want it, but our relevant actions began in about 2006.

Here is a timeline of events:

1992 – DEQ notified City of lead/copper rule requirements (Dave Timm letter indicates agreement for a modified consecutive monitoring approach)
 1992 – Lead action level was exceeded in first round of monitoring, appropriate follow-up activities took place
 1993 – Letter from Bay City (will conduct corrosion study, want to switch to a single, consecutive system for compliance)
 1996 – Desktop Corrosion Analysis recommends PO4 addition, and DPH (now DEQ) concurs (deadline to install set at 12/31/97)
 1996 – Letter from City requesting approval to pilot-test a switch to ferric sulfate as its primary coagulant (corrosion control goal is to have a finished water Chloride to Sulfate ratio of 0.6 or less based on AWWA paper and consultant's recommendation). I cannot locate any correspondence from DEQ agreeing to this requested change, but it appears to have taken place.
 1997 – March meeting notes/memo from consultant indicating that bench test results from the coagulant change were encouraging, and requesting a 6-month full scale test (which would be completed before the 12/31/97 deadline above). I cannot locate any correspondence from DEQ agreeing to this, but the meeting notes indicate DEQ attended the meeting, and as far as I know the City proceeded with this.
 1998 – DEQ letter approves single, consecutive system for compliance monitoring
 1998 – System meets action level for January-June, exceeds for July-December
 1999 – System meets action level for January-June, exceeds for July-December
 2000 – System meets action level for January-June, exceeds for July-December
 2001 – System meets action level for both monitoring periods
 2002 – System moves to reduced, annual monitoring, and meets action level
 2003 – System remains on reduced, annual monitoring, and meets action level
 2004 – System remains on reduced, annual monitoring, and exceeds action level
 2005 – System reverts to 6-month monitoring and meets action level during both monitoring periods
 2006 – System moves to reduced, annual monitoring, and exceeds action level
 2006 – DEQ meets with City (11/29). City indicates that they have contacted their consulting engineer to review corrosion control treatment practices.
 2007 – DEQ Sanitary Survey requires City to reoptimize corrosion control due to periodic action level exceedances, with report due to DEQ 6/30/09
 2009 – Corrosion control recommendations submitted to DEQ (part of the City's Simultaneous Compliance Assessment report), DEQ met with City 12/4, consultant recommended PO4 addition and pH adjustment, DEQ concurs
 2009 – December 17 letter establishes PO4 and pH adjustment as the official OCCT, set a 12/31/2011 deadline to install
 2010 – December 20 Sanitary Survey confirms that the deadline to install OCCT is 12/31/2011, but gives the City two options – commit to a new raw water source (that has a stable pH) and install PO4, or commit to remain on the current Saginaw Bay source (that has wide variations in pH and alkalinity) and install both PO4 and pH adjustment. The City subsequently chose to switch to a pH-stable raw water source (per their October 25, 2010 letter to us).
 2011 – PO4 treatment was installed by the deadline and was ready to begin operation; however, all parties involved agreed that hydrants should be flushed when PO4 treatment began. Due to concerns for cold weather/icing, the City

WSSN	NAME	Mon Perd	Perd Begin	Perd End	Collect Begin	Collect End	Analyte	# Collected	90th (mg/L)
00470	BAY CITY, CITY OF	1YR 2015	1/1/2015	12/31/2015	6/9/2015	6/16/2015	PB90	72	0.004
00470	BAY CITY, CITY OF	1YR 2015	1/1/2015	12/31/2015	6/9/2015	6/16/2015	CU90	72	0.17
00470	BAY CITY, CITY OF	6M 2014-2	7/1/2014	12/31/2014	9/8/2014	9/17/2014	PB90	98	0.0102
00470	BAY CITY, CITY OF	6M 2014-2	7/1/2014	12/31/2014	9/8/2014	9/17/2014	CU90	98	0.3702
00470	BAY CITY, CITY OF	6M 2014-1	1/1/2014	6/30/2014	4/29/2014	5/13/2014	PB90	98	0.003
00470	BAY CITY, CITY OF	6M 2014-1	1/1/2014	6/30/2014	4/29/2014	5/13/2014	CU90	98	0.28
00470	BAY CITY, CITY OF	6M 2013-2	7/1/2013	12/31/2013	9/25/2013	9/25/2013	PB90	97	0.0103
00470	BAY CITY, CITY OF	6M 2013-2	7/1/2013	12/31/2013	9/25/2013	9/25/2013	CU90	97	0.466
00470	BAY CITY, CITY OF	6M 2013-1	1/1/2013	6/30/2013	5/21/2013	6/7/2013	PB90	97	0.004
00470	BAY CITY, CITY OF	6M 2013-1	1/1/2013	6/30/2013	5/21/2013	6/7/2013	CU90	97	0.34
00470	BAY CITY, CITY OF	6M 2012-2	7/1/2012	12/31/2012	9/24/2012	10/4/2012	PB90	97	0.004
00470	BAY CITY, CITY OF	6M 2012-2	7/1/2012	12/31/2012	9/24/2012	10/4/2012	CU90	97	0.293
00470	BAY CITY, CITY OF	6M 2012-1	1/1/2012	6/30/2012	6/1/2012	6/26/2012	PB90	98	0.006
00470	BAY CITY, CITY OF	6M 2012-1	1/1/2012	6/30/2012	6/1/2012	6/26/2012	CU90	98	0.413
00470	BAY CITY, CITY OF	6M 2011-2	7/1/2011	12/31/2011	12/7/2011	12/28/2011	PB90	97	0.011
00470	BAY CITY, CITY OF	6M 2011-2	7/1/2011	12/31/2011	12/7/2011	12/28/2011	CU90	97	0.163
00470	BAY CITY, CITY OF	6M 2011-1	1/1/2011	6/30/2011	4/13/2011	4/19/2011	PB90	97	0.002
00470	BAY CITY, CITY OF	6M 2011-1	1/1/2011	6/30/2011	4/13/2011	4/19/2011	CU90	97	0.052
00470	BAY CITY, CITY OF	6M 2010-2	7/1/2010	12/31/2010	12/2/2010	12/16/2010	PB90	97	0.007
00470	BAY CITY, CITY OF	6M 2010-2	7/1/2010	12/31/2010	12/2/2010	12/16/2010	CU90	97	0.097
00470	BAY CITY, CITY OF	6M 2010-1	1/1/2010	6/30/2010	4/1/2010	4/15/2010	PB90	97	0.006
00470	BAY CITY, CITY OF	6M 2010-1	1/1/2010	6/30/2010	4/1/2010	4/15/2010	CU90	97	0.18
00470	BAY CITY, CITY OF	6M 2009-2	7/1/2009	12/31/2009	12/14/2009	12/14/2009	PB90	97	0.011
00470	BAY CITY, CITY OF	6M 2009-2	7/1/2009	12/31/2009	12/14/2009	12/14/2009	CU90	97	0.153
00470	BAY CITY, CITY OF	6M 2009-1	1/1/2009	6/30/2009	4/7/2009	4/7/2009	PB90	97	0.008
00470	BAY CITY, CITY OF	6M 2009-1	1/1/2009	6/30/2009	4/7/2009	4/7/2009	CU90	97	0.163
00470	BAY CITY, CITY OF	1YR 2008	1/1/2008	12/31/2008			PB90	69	0.0291
00470	BAY CITY, CITY OF	1YR 2008	1/1/2008	12/31/2008			CU90	69	0.321
00470	BAY CITY, CITY OF	6M 2008-2	7/1/2008	12/31/2008	12/17/2008	12/17/2008	PB90	97	0.0113
00470	BAY CITY, CITY OF	6M 2008-2	7/1/2008	12/31/2008	12/17/2008	12/17/2008	CU90	97	0.113
00470	BAY CITY, CITY OF	6M 2007-2	7/1/2007	12/31/2007			PB90	97	0.0113
00470	BAY CITY, CITY OF	6M 2007-2	7/1/2007	12/31/2007			CU90	97	0.123
00470	BAY CITY, CITY OF	6M 2007-1	1/1/2007	6/30/2007			PB90	97	0.008