

October 11, 2016

Mercy Montessori Chris Byrnes 2335 Grandview Avenue Cincinnati, OH 45206

## Dear Chris Byrnes:

Attached please find the results of the lead analyses performed for Mercy Montessori School by the Greater Cincinnati Water Works (GCWW). We appreciate the opportunity to assist you in understanding the water quality within your school. Our water utility provides a robust partnership with the schools within our service area to help all the schools understand their water quality. We consider this a high priority and have proactively partnered with schools to:

- explain our records of service lines providing water to the schools;
- verify the actual service lines;
- share a link or a copy of the recommended USEPA 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance Document (3Ts Guidelines);
- provide sample kits to the schools:
- analyze the samples, discuss the results in detail;
- consider follow-up samples, if needed;
- offer assistance with a remediation plan;
- post the results to the lead.mygcww.org website, school section;
- assist with creating a communications plan for the school community.

The following comments speak to the process, samples analyzed and additional steps needed to help ensure the safety of all the students within the school.

## **School Sample Results**

Earlier this month, Mercy Montessori School collected 49 samples from drinking fountains and sinks throughout the school. The results show the following:

- 25 samples (51.02%), below the detection level (<1)
- 21 samples (42.86%), between 1ppb and 5ppb
- 2 samples (4.08%), between 10ppb and 15ppb
- 1 sample (2.04%) greater than 15ppb.

Fifteen parts per billion (ppb) is the federal Lead and Copper Rule action level; desired results are below 15. The federal action level of 15ppb pertains to water utilities and GCWW's review and comments are based on this action level. However, the USEPA 3Ts Guidelines document outlines practices for schools to put in place if samples are greater than 20 ppb.

While we strive to have results less than 15, we recognize that lead is a pervasive environmental contaminant, and no safe blood lead threshold has been identified in children or adults. Therefore, we provide recommendations to further reduce any lead levels discovered at drinking water and cooking outlets.

## Next steps

GCWW has reviewed the results from your samples and provides some next-steps comments:

- 1. For results greater than 15 ppb, consider immediate remedies such as taking the sample location out of service until a more defined plan can be created. Refer to the 3Ts Guidelines that suggest shutting off or disconnecting problem outlets until the problem is resolved.
- 2. Although lower than the 15 ppb action level, for samples with lead detections, consider flushing the lines before using the water. Refer to the USEPA 3Ts Guidelines for more information.
- 3. Consider completing a plumbing profile to review the fixtures in the school as some fixtures may be contributing to the lead detections in samples. If the fixtures are the source of the lead, plan to replace them. The USEPA 3Ts Guidelines outlines a great approach to creating and implementing a remediation plan. A copy of the Guidelines can be found on our website <a href="http://www.cincinnati-oh.gov/water/assets/File/3T%20Guidance%20Manual%20for%20Schools.pdf">http://www.cincinnati-oh.gov/water/assets/File/3T%20Guidance%20Manual%20for%20Schools.pdf</a>.

State funds are available through the new Lead Plumbing Fixture Replacement Assistance Grant Program established to provide reimbursement to eligible schools for the assessment and replacement of certain plumbing fixtures. The program is open to traditional public schools, community schools, and chartered non-public schools. Program information can be found on the Ohio Facilities Construction Commission (OFCC) Services and Programs website <a href="http://ofcc.ohio.gov/ServicesPrograms/LeadFixtureReplacementGrants.aspx">http://ofcc.ohio.gov/ServicesPrograms/LeadFixtureReplacementGrants.aspx</a>.

4. If it hasn't occurred already, a robust communications plan is suggested. Communications plan steps are outlined in the 3Ts Guidelines. This plan will inform the school community of the sampling work the school has done to date and the steps the school will take to correct any issues discovered. GCWW employees can assist with this plan and are available to attend any school meetings to help explain our lead program, the sample results and our partnership with Mercy Montessori School.

Greater Cincinnati Water Works takes the presence of lead service lines and the removal of those service lines in our system very seriously. In addition, minimizing the exposure of lead within our preschools, schools, and daycares is one of our highest priorities under our Enhanced Lead Program. We look forward to our continued partnership with Mercy Montessori School. Our resources are available to assist in many ways. Please contact Jim Nelson at 591-6869 or Lynette Whitteberry at 591-7976 to discuss how we can assist with next steps within your school.

Sincerely,

Cathy B. Bailey

Director/Greater Cincinnati Water Works

Cc: Dr. Marilyn Crumpton, Cincinnati Health Department Dr. Camille Jones, Cincinnati Health Department Chuck DeJonckheere, Hamilton County Public Health Sheila Hill-Christian, City of Cincinnati Verna Arnette, Greater Cincinnati Water Works Jeff Swertfeger, Greater Cincinnati Water Works



	Mercy Montessori- Lead Testing Results							
SAMPLE CODE	SAMPLE DATE	SAMPLE TIME			AMOUNT	GCWW COMMENTS/REVIEW/ RECOMMENDATIONS REGARDING RESULTS		
MM1	10/1/2016		MERCY_BATHROOM_FL1_SINK1_MM1	Lead, ppb	<1	Less than detection level		
MM2	10/1/2016	8:44	MERCY_BATHROOM_FL1_SINK2_MM2	Lead, ppb	<1	Less than detection level		
MM3	10/1/2016	8:44	MERCY_BATHROOM_FL1_SINK3_MM3	Lead, ppb	<1	Less than detection level		
MM4	10/1/2016	8:44	MERCY_BATHROOM_FL1_SINK4_MM4	Lead, ppb	1.24	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.		
MM5	10/1/2016		MERCY_GYM_FL1_SINK_MM5	Lead, ppb	1.64	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.		
MM6	10/1/2016		MERCY_LOBBY_FL1_DF_MM6	Lead, ppb	<1	Less than detection level		
MM7	10/1/2016	8:58	MERCY_MUSICBATHROOM_FL2_SINK_MM7	Lead, ppb	<1	Less than detection level		
MM8	10/1/2016	8:58	MERCY_LOUNGEBATHROOM_FL2_SINK_MM8	Lead, ppb	1.52	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.		
MM9	10/1/2016	8:56	MERCY_KITCHENSERVING_FL2_SINK_MM9	Lead, ppb	1.25	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.		
MM10	10/1/2016	8:55	MERCY_KITCHENDISH_FL2_SINK_MM10	Lead, ppb	2.34	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.		
MM11	10/1/2016	8:55	MERCY_KITCHENFOOD_FL2_SINK_MM11	Lead, ppb	10.8	Lead detected; less than 15ppb action level. From the sample name, it is assumed the location is used for food prep for students. Consider flushing water before use. Although not above the action level, work swiftly to reduce lead levels at this location. Review 3Ts Guidelines to understand options to further reduce the risk of lead.		
MM12	10/1/2016	9:09	MERCY_WHITNEYCLASSROOM_FL2_SINK_SM_MM12	Lead, ppb	<1	Less than detection level		



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MM13	10/1/2016		MERCY_WHITNEYCLASSROOM_FL2_SINK2_MM13	Lead, ppb	3.85	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM14	10/1/2016	9:09	MERCY_WHITNEY_FL2_DF_MM14	Lead, ppb	<1	Less than detection level	
MM15	10/1/2016		MERCY_YVONNECLASSROOM_FL2_SINK1_MM15	Lead, ppb	1.15	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM16	10/1/2016		MERCY_YVONNECLASSROOM_FL2_SINK2_MM16	Lead, ppb	<1	Less than detection level	
MM17	10/1/2016		MERCY_MUSICBATHSINKRT_FL2_MM17	Lead, ppb	<1	Less than detection level	
MM18	10/1/2016	9:03	MERCY_JODIECLASSSROOM_FL2_SINK_MM18	Lead, ppb	<1	Less than detection level	
MM19	10/1/2016	9:03	MERCY_ARTSINKLG_FL2_MM19	Lead, ppb	2.58	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM20	10/1/2016	9:05	MERCY_DIANECLASSROOM_FL2_SINK1SMALL_MM20	Lead, ppb	1.64	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM21	10/1/2016	9:05	MERCY_DIANECLASSROOM_FL2_SINK2LG_MM21	Lead, ppb	2.36	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM22	10/1/2016		MERCY_CCSINK_FL_MM22	Lead, ppb	3.64	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM23	10/1/2016	9:17	MERCY_CC_FL2_DF_MM23	Lead, ppb	<1	Less than detection level	
MM24	10/1/2016		MERCY_CCKITCHEN_FL2_SINK_MM24	Lead, ppb	1.64	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM25	10/1/2016		MERCY_CCBATHROOM_FL2_SINK_MM25	Lead, ppb	<1	Less than detection level	
MM26	10/1/2016	8:58	MERCY_MUSIC_FL2_DF_MM26	Lead, ppb	<1	Less than detection level	



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MM27	10/1/2016	8:12	MERCY_PATTYBATHROOM_FL3_SINK_MM27	Lead, ppb	3.98	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM28	10/1/2016		MERCY_LOBBYMENBATHROOM_FL2_SINK_MM28	Lead, ppb	<1	Less than detection level	
MM29	10/1/2016		MERCY_LOBBYWOMANBATHROOM_FL3_SINK_MM29	Lead, ppb	<1	Less than detection level	
MM30	10/1/2016		MERCY_KITCHEN_FL3_SINK_MM30	Lead, ppb	<1		
IVIIVI3U	10/1/2016	6.03	WERCT_KITCHEN_FL3_STNK_WWW30	Leau, ppb	< 1	Less than detection level	
MM31	10/1/2016	8:20	MERCY_JENNYCLASSROOM_FL3_SINK_MM31	Lead, ppb	1.62	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM32	10/1/2016	8:20	MERCY_JENNY_FL3_DF_MM32	Lead, ppb	<1	Less than detection level	
MM33	10/1/2016	8:20	MERCY_CHRISCLASSROOM_FL3_SINK_MM33	Lead, ppb	<1	Less than detection level	
MM34	10/1/2016	8:21	MERCY_CHRIS_FL3_DFF_MM34	Lead, ppb	<1	Less than detection level	
MM35	10/1/2016	8:21	MERCY_HEIDICLASSROOM_FL3_SINK_MM35	Lead, ppb	<1	Less than detection level	
MM36	10/1/2016	8:21	MERCY_HEIDI_FL3_DF_MM36	Lead, ppb	<1	Less than detection level	
MM37	10/1/2016		MERCY_NOREENCLASSROOM_FL3_SINK_MM37	Lead, ppb	<1	Less than detection level	
MM38	10/1/2016	8:23	MERCY_NOREEN_FL3_DF_MM38	Lead, ppb	<1	Less than detection level	
MM39	10/1/2016	8:15	MERCY_LOBBY_FL3_DF_MM39	Lead, ppb	<1	Less than detection level	
MM40	10/1/2016		MERCY_SACRISTY_FL3_SINK_MM40	Lead, ppb	11	Lead detected; less than 15ppb action level. Consider flushing water before use. Although not above the action level, work swiftly to reduce lead levels at this location. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM41	10/1/2016	8:30	MERCY_BATHROOMGIRL_FL4_SINK_MM41	Lead, ppb	2.59	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	
MM42	10/1/2016	8:38	MERCY_BATHROOMBOY_FL4_SINK_MM42	Lead, ppb	4.34	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.	



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MM43	10/1/2016	8:35	MERCY_BATHROOMTEACHER_FL4_SINK_MM43	Lead, ppb	3.34	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.
MM44 MM45	10/1/2016 10/1/2016		MERCY_SCIENCECLASSROOM_FL4_SINK_MM44 MERCY_HALL_FL4_DF_MM45	Lead, ppb Lead, ppb	2.47	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.  Less than detection level
IVIIVI45	10/1/2016	0.33	WERCT_HALL_FL4_DF_WW45	геай, ррь	< 1	Less than detection level
MM46	10/1/2016	8:38	MERCY_MAILBOX_FL4_DF_MM46	Lead, ppb	1.39	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.
MM47	10/1/2016	8:39	MERCY_KEITHCLASSROOM_FL4_SINK_MM47	Lead, ppb	2.12	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.
MM48	10/1/2016	8:27	MERCY_CONFERENCE_FL5_SINK_MM48	Lead, ppb	61.6	Above 15ppb federal action level and 20ppb level identified by USEPA to trigger schools to take action to reduce lead. Until a defined remediation plan is created, immediately remove from service (tag out of service and/or disconnect the water supply to this location).
MM49	10/1/2016	8:27	MERCY_FL5_DF_MM49	Lead, ppb	3.66	Lead detected; less than 15ppb action level. Review 3Ts Guidelines to understand options to further reduce the risk of lead.