

Department of Environmental Quality (DEQ)
Belding Lead Remediation

Mueller Industries/Extruded Metals, Inc.
302 Ashfield Street
Belding, Michigan

How did we get here?

2008 - EPA lowered the ambient air standard for Lead.

January 2010 - Air Quality Division placed an ambient air monitor on Merrick Street to the east of Mueller /Extruded Metals.

January - July 2010 – Air sampling determined Mueller's emissions exceed the new standard.

September 23, 2010 – DEQ Public Meeting to present the Air Quality data to the public. The Remediation Division commits to soil sampling.

Project Timeline

October 11 - 13, 2010 – DEQ-RD collects 375 XRF screening and 10 lab soil samples from 51 properties, as well as Road right-of ways, parks and Ellis School.

November 23, 2010 – Meeting with Mueller-Company is committed to comply with DEQ Request .

January 12, 2011 – Public Meeting to present results of DEQ-RRD soil sampling.

DEQ XRF Screening



Project Timeline (continued)

May 25 - June 17, 2011 – Advanced GeoServices performed Remedial Investigation on 49 properties for Mueller– Identified 12 properties for Remediation.

DEQ Requested an additional 4 properties for Remediation based on the DEQ Soil Samples.

September 14 - 20, 2011 – Advanced GeoServices and Remediation Division Combined Multi Incremental Sampling.

Multi Increment Sampling



Project Timeline (continued)

October 4, 2011 – Soil Excavation Activities began. 436 tons of lead impacted soil were excavated to a minimum depth of 3 inches at 16 properties using a combination of vacuum truck, mini-excavator, and hand shovel.

- Dust monitoring was performed within the excavation area during all excavation activities.
- Confirmation sampling was performed using nine XRF samples from each excavation area. If the result was above 400 mg/L the excavation was excavated an additional 3 inches.

Soil Removal



Project Timeline (continued)

Clean topsoil, that was evaluated for organic content, as well as the ability to promote and sustain grass growth, was backfilled into the excavations and hydro-seeded.

Erosion mats consisting of coconut shell fibers were placed over the excavation areas.

October 10, 2011 – Public Meeting for new air permit

October 26, 2011 - Remediation completed.

Where we are today

January 18, 2012 – Mueller submitted a Request for DEQ Review of a No Further Action Report.

April 4, 2012 – DEQ Approval of No Further Action Report.

As of today, all of the residential properties to the east of the Mueller Industries-Extruded Metals, facility meet the State lead clean-up standard for residential property of 400 mg/kg (ppm).

Remediation Complete



DEQ - Division Contacts

Remediation:

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Mueller Airborne Lead Emissions

- Brief Summary of Previous Actions
- Update of Events Since Last Public Meeting (January 2011)
- Future Actions

Previous Actions

- September 2009 – Stack testing showed the exceedance of permitted emission limits for the West Chip Dryer
- Violation Notice issued and Mueller started making modifications to the air emission control equipment

Previous Actions

- August 2010 – Mueller stopped operating the East Chip Dryer
- September 2010 – Mueller installed an enhanced air emission scrubber system on the West Chip Dryer

Previous Actions

- October 2010 – Stack testing showed compliance with the permitted emission limits for the West Chip Dryer
- November 2010 – Testing conducted on the East and West Baghouses, which control emissions from the Brass Melting Furnaces, showed compliance with the permitted emission limits

Update of Events Since Last Public Meeting

- January 2011 - Mueller submitted an air permit application to demonstrate compliance with the revised National Ambient Air Quality Standard (NAAQS) for lead
- August 2011 – Air Permit issued to Mueller

Update of Events Since Last Public Meeting

- Key Additions to New Air Use Permit:
 - Operation of enhanced control equipment
 - Preventative Maintenance/Malfunction
 - Increased Monitoring/Recordkeeping
 - Stack Test West Chip Dryer every 5 years
 - Increase West Chip Dryer Stack to 122 feet

Update of Events Since Last Public Meeting

- **New Stack Installed January 2012**



Update of Events Since Last Public Meeting

- December 2011 – Mueller entered into a Consent Order with MDEQ
 - Paid a penalty of \$176,000
 - Stipulates fines for violations of the Air Use Permit

Future Actions

- Consent Order will remain in effect for at least 3 years
- If East Chip Dryer is restarted – the emission controls and stack will need to be upgraded to match the West Chip Dryer
- Conduct chip dryer stack testing every 5 years
- Continued operation of the two ambient air monitoring units

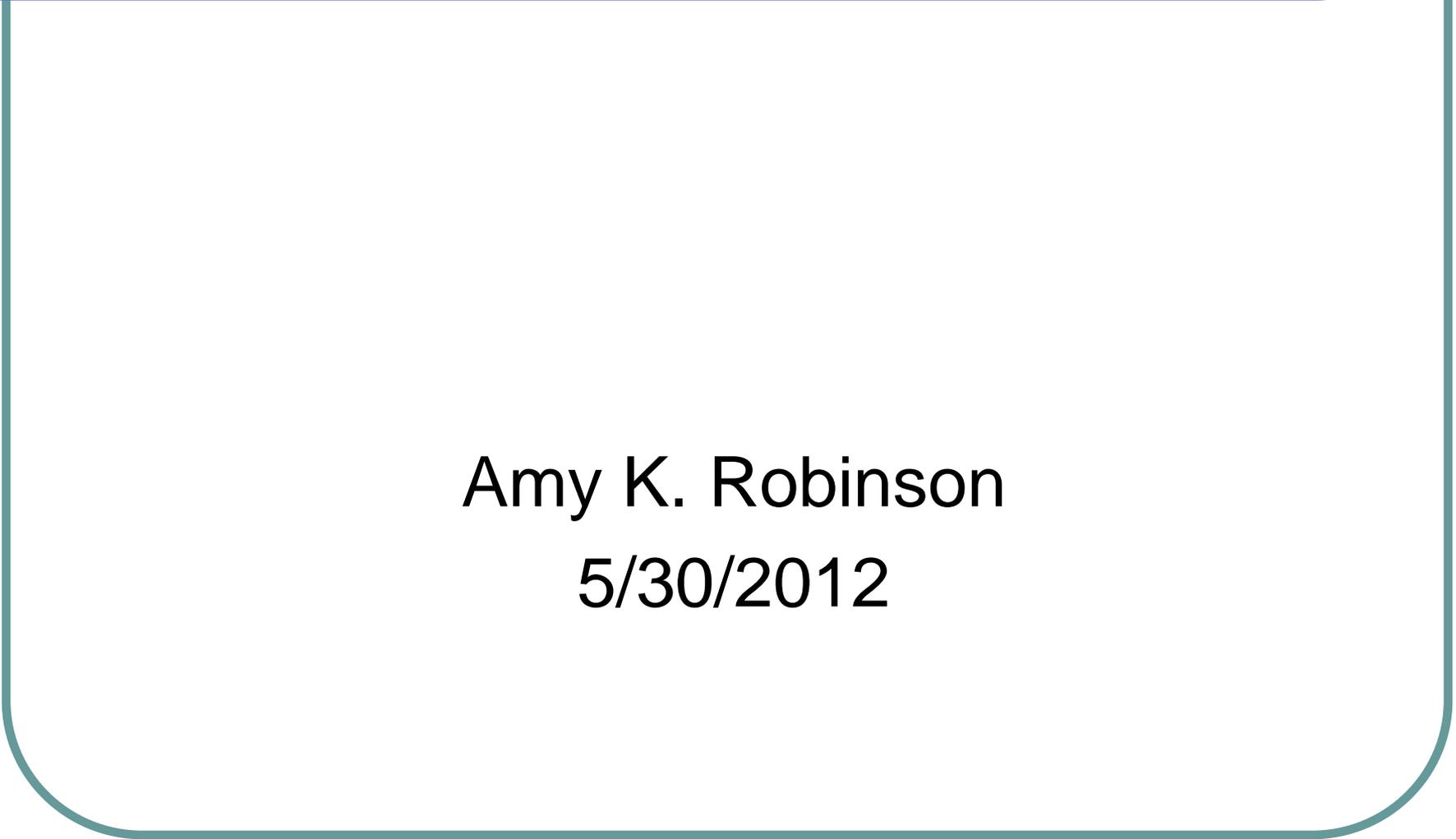
Local Air Issues Contact

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Amy K. Robinson

5/30/2012



Belding Lead Data

Year	Month	Belding (Merrick St)		Belding (Reed St)	
		Mo Avg	3-Mo Avg	Mo Avg	3-Mo Avg
2010	1	0.09350	---	---	---
2010	2	0.2025	---	---	---
2010	3	0.02368	0.11	---	---
2010	4	0.2645	0.16	---	---
2010	5	0.3609	0.22	---	---
2010	6	0.2264	0.28	---	---
2010	7	0.1368	0.24	---	---
2010	8	0.4131	0.26	---	---
2010	9	0.07521	0.21	---	---
2010	10	0.2934	0.26	---	---
2010	11	0.01609	0.13	---	---
2010	12	0.03450	0.11	---	---
2011	1	0.1947	0.08	---	---
2011	2	0.09663	0.11	---	---
2011	3	0.04045	0.11	---	---
2011	4	0.06084	0.07	---	---
2011	5	0.01283	0.04	---	---
2011	6	0.03049	0.03	---	---
2011	7	0.1716	0.07	0.2987	---
2011	8	0.1276	0.11	0.0587	---
2011	9	0.0389	0.11	0.1805	0.18
2011	10	0.0915	0.09	0.0385	0.09
2011	11	0.0249	0.05	0.0169	0.08
2011	12	0.0065	0.04	0.0203	0.03
2012	1	0.0363	0.02	0.0530	0.03
2012	2	0.02766	0.02	0.05834	0.04
2012	3	0.02079	0.03	0.03699	0.05

3 Month Average for Lead 2010-2012

■ Merrick St-Belding ■ Reed St-Belding

