PENNSYLVANIA DEPARTMENT OF HEALTH
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Exposures to lead in the air near the American Zinc Recycling LLC (AZR) facility in Palmerton, Carbon County, PA

DATE:	09/06/2018
TO:	Health Alert Network
FROM:	Dr. Rachel Levine, Secretary of Health
SUBJECT:	**Exposures to lead in the air near the American Zinc Recycling LLC (AZR) facility in Palmerton, Carbon County, PA**
DISTRIBUTION:	Carbon County, PA
LOCATION:	Carbon County, PA
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

This transmission is a "Health Advisory": provides important information for a specific incident or situation; may not require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, NURSING, AND LABORATORY STAFF IN YOUR HOSPITAL

EMS COUNCILS: PLEASE DISTRIBUTE AS APPROPRIATE

FQHCs: PLEASE DISTRIBUTE AS APPROPRIATE

LOCAL HEALTH JURISDICTIONS: PLEASE DISTRIBUTE AS APPROPRIATE

PROFESSIONAL ORGANIZATIONS: PLEASE DISTRIBUTE TO YOUR MEMBERSHIP

Summary

- The Pennsylvania Department of Health (DOH) is working with our federal partners at the Agency for Toxic Substances and Disease Registry (ATSDR) to review residents' exposure to lead in the air near the American Zinc Recycling LLC (AZR) facility, formerly Horsehead Zinc, currently operating in Palmerton, Carbon County, Pennsylvania.
- ATSDR recently completed a study that evaluated the community's current exposure to lead in the air.
- Persons who may be at most risk for increased lead exposure include young children and pregnant women.
- If you are concerned about lead levels in your blood, please consult with your healthcare provider.
- Call the Pennsylvania Department of Health's Lead Information Line at 1-800-440-LEAD (1-800-440-5323) if you have concerns about exposure to lead and want more information on steps you can take to reduce exposures.

Background on Lead Exposure

Sources of lead emissions vary from one area to another. At the national level, major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters.

As a result of Environmental Protection Agency's (EPA) regulatory efforts including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014.

Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. The lead effects most commonly encountered in current populations are neurological effects in children and cardiovascular effects (e.g., high blood pressure and heart disease) in adults. Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits and lowered IQ.

Pregnant women may have a higher risk for miscarriage.[1] Lead in the mother's bloodstream can pass to her unborn baby. The baby's lead exposure may cause it to be born too early or too small. Damage to the baby's developing brain may also occur.

National Ambient Air Quality Standards (NAAQS) for Lead

On September 16, 2016, based on its review of the air quality criteria for lead, the EPA issued a decision to retain the existing 2008 standards without revision. The lead standards are 0.15 micrograms per cubic meter ($\mu g/m^3$) lead in total suspended particles as a 3-month average. https://www.epa.gov/lead-air-pollution/national-ambient-air-quality-standards-naaqs-lead-pb.

ATSDR Study Findings

PADOH is working with our federal partners at ATSDR to review the possible exposure to lead in the air near the AZR facility in Palmerton, Carbon County, PA.

A recent study by the ATSDR evaluated the community's current exposures to lead in the air near the AZR facility. The levels detected at the Palmerton NAAQS monitor exceeded the 3-month rolling average of 0.15 $\mu g/m^3$ one time (in May 2015) over the 2013-2015 monitoring period. Using air modeling data, the highest estimated rolling 3-month average lead concentration was 0.244 $\mu g/m^3$. Based on modeling results and monitoring data, the amount of lead in the air within 3 miles of the AZR facility could present a public health hazard. Young children and pregnant women are at most risk from lead exposure. ATSDR also summarized available childhood blood lead information for this community. ATSDR released the AZR Letter Health Consultation on July 31, 2018, available at: https://www.atsdr.cdc.gov/HAC/pha/AmericanZincRecycling/American_Zinc_Recycling_LCH_508.pdf

The study focused on the health risks associated with exposure to lead in the air. ATSDR evaluated air monitoring data from the Pennsylvania Department of Environmental Protection.

The rates of elevated blood lead levels in children living in Carbon County are similar to statewide rates. However, due to the small numbers of children involved, specific rates for Palmerton are not available to determine whether blood lead levels in children are unusually high in the immediate area near the AZR facility.

Air modeling results suggest that higher concentrations of lead than those measured at the existing air monitoring station are possible in the Palmerton community.

Recommendations for Healthcare Providers and Community Members

• Reduce children's exposure to sources of lead, including lead-based paint, lead-containing toys, and contaminated soil/dust.
• Test children's blood for lead, following guidance from the CDC[2] and American Academy of Pediatrics[3].
• Call PADOH's Lead Information Line at 1-800-440-LEAD (5323) if you have concerns about exposure to lead and want more information on steps you can take to reduce exposures.

Please submit your questions about the AZR facility documents to env.health.concern@pa.gov**.**

[1]CDC – "Lead Poisoning-Are You Pregnant?" fact sheet

[2]CDC, Recommended Actions Based on Blood Lead Level, 2018. Available at: https://www.cdc.gov/nceh/lead/acclpp/actions_blls.html.

[3]American Academy of Pediatrics, Detection of Lead Poisoning, 2016. Available at: https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/lead-exposure/Pages/Detection-of-Lead-Poisoning.aspx.

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.
Health Advisory: provides important information for a specific incident or situation; may not require immediate action.
Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of September 6, 2018 but may be modified in the future.