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DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Environmental Cleanup & Brownfields

Land Recycling Program Addressing Historical Application of Lead and Arsenic Pesticides Draft Guidance

Cleanup Standards Scientific Advisory Board
Meeting
October 30, 2024

Josh Shapiro, Governor

Jessica Shirley, Acting Secretary

Purpose

- Provides a route for large areas (orchards or golf courses) to attain a standard for lead and arsenic.
 - Normal application of lead arsenate pesticides
 - Vertical in-situ mixing of soil

Limitations on Use

- Mixed soil can not be removed from the site to be used as clean fill
 - Recommend deed notice to identify remediation technique
- Cleanup plan/soil mixing plan recommended
 - Based on standard being attained

Limitations on Use

- Can only be used on lead arsenate sites
- Mixing prohibited into capillary fringe
 - Protect groundwater
- Clean soil from offsite can not be used

Characterization

- Biased sampling
 - Runoff areas
 - Pesticide application areas
 - Tees and greens
 - Historical drip lines
- Sample density
 - Minimum samples outlined

Characterization

- Sample depth
 - Vertical delineation
 - Location of capillary fringe
- Analytical parameters
 - Recommendations for both organic and inorganic pesticides
 - Results can be evidence of historical pesticide application

Mixing Design Limitations

- Depth of mixing
- Composition of soil
- Potential for background concentrations
- Concentration of lead and arsenic

Attainment

- Horizontal and vertical extent of mixing
- Recommended sample density
- Statistical evaluations will be permitted

Next Steps

- Collect comments from regions and CSSAB
- Revise document based on comments provided
- Add to the TGM as Appendix II-B: Addressing the Historical Application of Lead and Arsenic Pesticides

Special Thanks

Deborah Miller
Regional Workgroup



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Questions?

Brie Sterling

bstirling@pa.gov