

Community Soils Operable Unit
 Anaconda, Montana (Region 8)
 Explanation of Significant Differences
 June 12, 2020

JUSTIFICATION FOR CHANGES TO ATTIC DUST REMEDIATION PROGRAM:

- Since 2002, Atlantic Richfield Company (AR), under the direction of EPA and the Montana DEQ, has been remediating residential and commercial soils throughout the Anaconda Smelter site, which covers nearly 300 square miles.
- To date, remedial action activities to address site contaminants have been implemented on nearly 2000 community properties, mostly residential. Residential soils that exceed 250 mg/kg arsenic or 400 mg/kg lead are removed and replaced with clean soil. Commercial properties are remediated if they exceed 500mg/kg arsenic.
- Remediation of residential attics, where an exposure pathway was identified, was initiated in 2015. Attic dust that exceed 250 mg/kg arsenic or 400 mg/kg lead was removed. To date, over 100 attics have been remediated.
- In the fall of 2018, the Agency for Toxic Substances and Disease Registry (ATSDR), in coordination with the Montana Department of Public Health and Human Services (MT DPHHS), conducted an Exposure Investigation (EI) in Anaconda, Montana to assess lead and arsenic exposure. ATSDR tested a total of 367 people during two sampling events in September and November of 2018.
- The overall conclusion of the EI is that levels of blood lead and urinary arsenic measured in residents of Anaconda that participated in the EI are comparable to the U.S. population, as reported in the National Health and Nutrition Examination Survey (NHANES).
- However, participants who reported entering their attics on a regular basis generally had higher blood lead levels and total arsenic than other participants.
- ATSDR identified specific actions, consistent with prudent public health practice that may further reduce the risk of lead and arsenic exposures in Anaconda residents. ATSDR recommends primary prevention efforts to avoid exposure to lead and arsenic in soil. ATSDR supports the following recommendations and public health actions.
 - Anaconda citizens (including landlords) should participate in the Superfund Community Soils Operable Unit residential yard and attic clean-up programs as a primary mechanism for reducing potential exposure to lead and arsenic. Through the Superfund program (funded by Atlantic Richfield Co. with EPA oversight), residents may opt for soil and attic testing. Based on the results, residents may qualify for a contractor to clean contaminated attics. EPA and Anaconda-Deer Lodge County should make efforts to increase participation in these programs. In the meantime, ATSDR recommends that residents minimize time (or seal entryway) in untested or contaminated (but not yet remediated) attics.
 - Anaconda citizens should take prudent actions to avoid contact with potentially contaminated soil. These actions include:
 - Avoid areas of known contamination (e.g., slag piles) and instruct children not to play or ride bikes there;
 - Supervise children closely to modify or eliminate risky hand-to-mouth behaviors or intentional eating of dirt (pica behavior);
 - Damp mop and damp dust surfaces;

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- Cover bare soils with vegetation (grass, mulch, etc.) and create safe play areas for children with clean ground cover;
 - Remove shoes before entering the home; and
 - Bathe pets regularly to avoid them tracking contaminated soil into homes.
- Anaconda-Deer Lodge County, working with Atlantic Richfield, has developed a comprehensive long-term attic dust abatement program that would provide for attic dust cleanup beyond what is identified in the Community Soils Remedial Action Work Plan. This comprehensive program will provide attic dust abatement to any resident that requests it through the program. The Anaconda-Deer Lodge County program is intended to be available for a period of 25 years.
- EPA believes that addressing attic dust contamination through this long-term comprehensive abatement program proposed by Anaconda-Deer Lodge County, along with the county's other institutional controls programs, will better address exposure to attic dust contamination at the site.

JUSTIFICATION FOR CHANGES TO INSTITUTIONAL CONTROLS PROGRAM:

- Although the 1996 ROD identifies the potential for contingency measures if the institutional controls programs fail to achieve remedial requirements, it did not recognize alternative institutional controls that could be implemented by parties other than Anaconda-Deer Lodge County. This Explanation of Significant Differences (ESD) identifies the alternate institutional controls that could be implemented by parties other than Anaconda-Deer Lodge County. These contingency requirements will be further detailed in an Institutional Controls Implementation and Assurance Plan.
- This ESD identifies the following contingency institutional controls that could be implemented by parties other than Anaconda-Deer Lodge County. These contingency institutional controls may include:
 - Materials Handling Program. This would allow for continued delivery of the services provided under the Development Permit System for identifying, tracking, and assisting with certain development projects within the Superfund Overlay. These would include: education and outreach; monitoring of a public notification process for development projects (such as 811 "call-before-you-dig"); an element in the Geographic Information System mentioned below for tracking development projects; pre-development and post-development sampling; instruction on appropriate measures for soil removal, treatment, or covering; and protection or replacement of existing protective covers and storm water controls within a proposed development area;
 - Domestic Well Program. This program would identify, track, and assist with the drilling and use of new domestic wells and the replacement or conversion of existing wells for drinking water use within the Superfund Domestic Well Overlay. Eligible wells would be identified through education of well drillers, 811 "call-before-you-dig" services, and public education. Eligible wells would be sampled in accordance with the Domestic Well Monitoring Plan. Sampling results would be used to determine what additional remedial action should be done, as specified in the Domestic Well Monitoring Plan. Designation and enforcement of a Controlled Groundwater Area by the Montana Department of Natural Resources and Conservation (under Mont. Code

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- Ann. §§ 85-2-501 et seq.) could be used instead of or in addition to the domestic well program described above.
- Interior Dust Program. This program would be unchanged from that outlined in the 2017 ESD. It would include Education; Cleaning, Hygiene, and Diet Guidance; HEPA Vacuum Cleaner Loaner Program Renovation Starter Kits; and Home Inspections.
- Community Protective Measures Program. This would provide for a health education program to inform residents within the Superfund Overlay of the potential risks to arsenic and lead and recommendations for reducing exposure to lead; track information and data on arsenic and lead concentrations/locations in the Anaconda-Deer Lodge County data base/GIS for public access to be used by regulators, prospective home buyers, lenders, contractors, and others; prior to soil remediation, coordinate with landowners to address deteriorating exterior lead paint from homes/garages/fences that may have the potential to re-contaminate remediated soil areas.
- Soil Swap Program. An element of the Community Protective Measures Program, this would provide for removing soil from certain vegetable gardens, designated play areas, or excavation areas, and replacing it with clean soil.
- Domestic Wells. Consumption of well water within the Domestic Well Overlay containing arsenic at concentrations greater than the human health standard would be prevented under either or both of the following mechanisms.
 - A petition to the Montana Department of Natural Resources and Conservation could be made to designate a controlled ground water area by rule as provided at Mont. Code Ann. §§ 85-2-501 et seq.
 - Any party could identify and provide test and treatment or well replacement to persons or entities engaged in the drilling of new domestic wells. Any such well must be within Superfund Domestic Well Overlay.
 - Additional actions to manage contamination from the main granulated slag pile. These actions include constructing partial covers to reduce off-site migration of contaminants onto adjacent remediated areas and employing additional best management practices for on-site commercial operations to reduce off-site migration of contaminants and improve