BACKGROUND PAPER
JUNE 11, 2019 ANACONDA SMELTER SUPERFUND SITE VISIT
DATE PREPARED: 5/15/19

Objective: Visit the Anaconda Smelter Superfund Site to provide Regional Administrator Greg Sopkin a site tour and overview of the recently reached a conceptual settlement framework that addresses final cleanup actions at the Anaconda Co. Smelter Superfund site and provides the potential for significant benefits to the local community.

Location: Anaconda MT

Site Background: In September 1983, EPA placed the Anaconda Co. Smelter site on the Superfund Program's National Priorities List to address contamination from smelting operations there. EPA is the lead agency with Atlantic Richfield Company (AR) conducting site activities through administrative orders. The 300-square-mile Anaconda Co. Smelter site is located at the southern end of the Deer Lodge Valley in Montana, at and near the location of the former Anaconda Copper Mining Company (ACM) ore processing facilities. In 1884, ACM and its predecessors started large copper concentrating and smelting operations at the area presently known as the Old Works. The Old Works was located on the north side of Warm Springs Creek next to the town of Anaconda and operated until about 1901. Around 1902, ore processing and smelting operations began at the Washoe Reduction Works (also called the Anaconda Smelter, the Washoe Smelter, the New Works, and the Anaconda Reduction Works) on Smelter Hill, south of the Old Works and east of Anaconda.

In 1977, AR merged with ACM and assumed it liabilities, including the smelter's contamination and cleanup liability. Operations at the Anaconda Smelter ceased in 1980 and the smelter facilities were dismantled soon thereafter. Over a century of milling and smelting operations, high concentrations of arsenic, lead, copper, cadmium, and zinc were produced. These wastes contaminated soil, groundwater and surface water at Anaconda and Deer Lodge County. Cleanup is complete at several areas within the site and operation and maintenance activities are ongoing at these areas. Cleanup is underway at the remaining areas. Remedies that have been completed are currently protective of human health and the environment. Where remedies are not complete, access is controlled to prevent human exposure to waste.

Cleanup Status:

- The 300-square-mile Anaconda Co. Smelter site is located at the southern end of the Deer Lodge Valley in Montana, at and near the location of the former Anaconda Copper Mining Company.
- As a result of ore processing operations, wastes contaminated soil, groundwater and surface water with arsenic, copper, cadmium lead and zinc, which are hazardous substances under the Superfund law.
- EPA placed the Anaconda Co. Smelter site on the National Priorities List (NPL) in September of 1983.
- Cleanup is complete at several areas within the site and operation and maintenance activities are ongoing at these areas. Cleanup activities are underway at the remaining areas.
- The site consists of multiple areas, referred to by EPA as operable units (OUs).
- Cleanup has been ongoing since late 1980's in which over $400 million has been spent on cleanup to date.
    - Nearly 1300 residential and commercial properties have been cleaned up to date, with another 1000 to be completed in the next three+ years.

- All domestic wells and/or water supplies have either been tested and/or remediated (treatment units) within the site. Wells will be continued to be monitored/treated.
- Over 10 million cubic yards of waste have been removed from the community and consolidated onto AR property.
- Over 5000 acers (500 million cubic yards or waste) of the former smelter facility and disposal areas have been capped and revegetated.
- Nearly 1000 acers of new wetlands have been constructed and another 5000 acers protected.
- Over 12,000 acers of adjacent contaminated soils have been reclaimed and support wildlife & grazing lands.
- 140,000 feet of stormwater controls placed to reduce contaminated sediments from impacting streams
- 30,000 feet of stream have been restored providing for a high-quality fishery.

Community Concerns/ *EPA Actions*:

- Concern that the cleanup in Anaconda is inadequate-soil arsenic action level is too high/not protective; attic dust sampling/remediation is too limited; schools and parks have not been a priority in cleanup.
- Belief that private property should be restored to original conditions-cleanup vs restoration (Christian Lawsuit). AR currently has a petition before the Supreme Court seeking a ruling that such actions are pre-empted by CERCLA.
- Belief that more should be done to promote redevelopment in the community considering the lack of infrastructure, with the developable space and capital.
- In May 2018, ATSDR along with local and state partners conducted a community listening session to understand the community's health concerns. In July 2018, ATSDR returned to the community to provide their findings and announce that an exposure investigation will be conducted.
- EPA will begin the process of delisting three operable units this year (Arbiter, Beryllium, and Flue Dust Operable Units).

Q&As

Why was the Consent Decree negotiation process conducted behind closed doors?

The negotiation of the Anaconda Smelter consent decree is conducted as required by the court in United States of America v. Atlantic Richfield Company et al., Civil Action No. CV89-039-BU-SEH, originally filed in 1989. An order issued by that court in 2002 requires that negotiations concerning liability and cleanup at the Anaconda Smelter Superfund Site be conducted in a confidential setting. The issues are complex, and time was needed to assess positions in light of ongoing data collection and analysis. The discussions were recently accelerated which resulted in a conceptual settlement framework agreement, along with a commitment by all parties to share information about that framework with the public and to seek public input before a full consent decree agreement is reached.

EPA worked with the Department of Justice to obtain a modification of the confidentiality order, so that the cleanup plans discussed in the CD negotiations could be shared and discussed with the public. That modification has allowed EPA to have the many public interactions we are currently having in Butte and Anaconda.

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What does a consent decree guarantee?
The consent decree will describe the responsible party's commitments to perform future cleanup work as well as other ongoing remediation work. It will also provide for cost payment and financial assurance obligations and other commitments by the responsible party. Once entered and signed by a federal court judge, the consent decree is binding on all parties. subject to stipulated penalties if not performed, as well as direct enforcement by the court if necessary. Consent decrees are standard documents that are provided for under CERCLA law and are agreed to and issued at many Superfund sites across the country. They are a secure way to be sure cleanup actions happen under EPA and MDEQ oversight and approval.

When will the consent decree be finalized?
All parties have set a goal of December 2019 for the lodging of a consent decree with the federal court (which will be followed by the U.S. Department of Justice comment period). Finalization of the Consent Decree is contingent on the parties reaching agreement on many details regarding the implementation of the conceptual agreement.

If members of the community feel strongly about certain aspects of the ROD, will the parties be willing to change it to meet their concerns?
The Superfund process values community participation and input in deciding on the details of remedial designs and construction.

Will the public have a say in the future use of these sites?
Yes, Anaconda Deer Lodge County and the other stakeholders will continue to work with the community to help realize certain community visions. The specific methods are not known at this time but may include listening sessions, public meetings, and surveys.

Why is Anaconda's arsenic action level (250 mg/kg) one of the highest in the country?

- The arsenic action level at 250 mg/kg is within EPA's acceptable risk range (because of low arsenic bioavailability) and was supported by the State of Montana.
- The action level is used to address "hot spots" within the community. The cleanup is intended to reduce the overall average arsenic risk to approach Montana's risk goal for a residential property.
- In Anaconda where arsenic and lead are being cleaned up, the resulting average arsenic concentration in yards approaches 100 mg/kg.
- Additionally, Institutional Controls (ICs) are in place to address residual arsenic encountered through excavation or redevelopment
- If the county eliminates these ICs, EPA will likely revise the soil cleanup design.

Why is residential cleanup taking so long?

- Although some of the earliest cleanup at the site was directed at residential areas (Mill Creek relocation, yard removals), EPA continues to address residential soils as new science and information becomes available.

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- Risk analyses in the 1990's indicated that arsenic was the contaminant of concern and remediation sampled nearly 2000 home and cleanup over 350 homes.
- In the 2000" s CDC guidelines for lead contamination lowered. As a result, EPA conducted additional studies and risk analysis and ultimately modified the community soils remedy in 2013.
- In 2015, EPA directed ARCO to resample the 2000 homes for lead and any other properties requested by landowners. Additionally, properties where former railroad or trolley lines ran will also be sampled.
- All schools, parks and daycares will be sampled in 2018
- Sampling and cleanup will continue through 2022+.

Why is the lead cleanup action level lower in Anaconda than Butte?

- Anaconda lead bioavailability is higher than in Butte, thus a lower cleanup level. Additionally, SBCSA has extensive IC's that address multiple sources of lead compared to Anaconda.

Is there contamination in Butte because of the historic Anaconda smelter?

- EPA has not seen data to indicate contamination from the Anaconda Smelter has impacted Butte. However, smelter contamination from Anaconda does extend over the Butte-Silver Bow county boundary near Anaconda.

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