Colorado Smelter Cleanup Process

Proposed Next Step:
Early Action
Interim Record of Decision (ROD)

September 13, 2016
Overview Cleanup Process & Proposed Next Step

Early Action Interim Record of Decision (ROD)
Remedial & Removal

- **Removal Actions** – A quick, short-term approach to address immediate concerns. Recently used for fencing around part of OU2 and for interior dust cleanups of 20 residences in OU1.

- **Remedial Actions** – Longer-term approach, without the time and funding restrictions of Removal Actions.

  - We do know we need to do more interior cleanups as well as begin the outdoor soil cleanups.

  - Looking at options to address the situation in the shortest period of time (via remedial process).

1. Bring right resources to the site.
2. Move quickly to cleanup for both Outdoor Soils & Interior Dust
Records of Decision

- Records of Decision (RODs) document Superfund Remedial Action Decisions. Or in other words, how EPA will cleanup a site.
- We are focusing on an Early Action Interim ROD.
- Two parts to this approach which will be discussed in the next slides:
  - Early Action vs. Typical Timeframe
  - Interim vs. Final ROD
Early Actions versus Typical Timeframe

- **Early Action**: is to address immediate threats before a formal Remedial Investigation/Feasibility (RI/FS) report is complete.

- **Typical Timeframe**: Fully complete the Remedial Investigation/Feasibility Study Report prior to proposing a remedy, signing a ROD and conducting any cleanup work
Interim ROD versus Final ROD

- **Interim ROD** - Take quick action to protect human health and the environment from an imminent threat in the short term, while a final remedial solution is being developed

- **Final ROD** —
  - Fully provides long-term protection of human health and the environment;
  - Comply with ARARs
  - Fully address the principal threats posed by the operable unit; and
  - Address the statutory preference for treatment that reduces the toxicity, mobility, or volume of wastes.
Why use an Early Action Interim ROD at the Colorado Smelter Site?

– The first set of data identified an immediate threat with lead in the indoor dust.
– A short-term removal action to cleanup indoor dust has been underway, but is not a comprehensive, long-term cleanup solution.
– Allows us to start to remediate outdoor soils on homes that have had interior dust cleanups AND to remediate additional residences for interior dust and outdoor soils sooner than if a Final ROD approach is used.
– Public comment will be considered through a “Proposed Plan” process the same as would be done with a Final ROD.
Community Involvement in the Superfund Process

Proposed Plan
for the Early Action Interim ROD
Proposed Plan Overview

- Informs and summarizes all alternatives considered.
- Required by law and regulations.
- Presents EPA’s preferred alternative (remedy) and rationale.
- Community has an opportunity to comment.
- Important to note: EPA does not made any final decisions until after community input is carefully considered. The decision is ultimately documented in the ROD, which has a Responsiveness Summary describing how public comments were considered.
Proposed Plan & Early Action Interim ROD steps in the process

1. Draft/finalize supporting documents – In progress
2. Compile Administrative Record (Documents relied on to support the decision in the ROD)
3. Proposed Plan released
4. 30-day comment period
5. Public meeting during the 30-day comment period
7. Finalize and sign ROD. State has concurrence role.
Funding for Proposed Action

- The Region presents information on proposed action to the National Prioritization Panel in November 2016.
- Site is ranked for funding compared to needs of other sites across the country.
- After the ROD is signed, EPA and the State of Colorado enter into a Superfund State Contract (SSC) where Colorado commits to funding it’s 10% share of the costs. (90% is funded by EPA.)
- Funds are released to the Regional office, pending national budget received by EPA and ranking from Prioritization Panel.
Administrative Record
Documents Supporting Early Action Interim ROD
Administrative Record for an Early Action Interim ROD

- Contaminants of Potential Concern (COPC) memo
- Bioavailability and Geospeciation Memos
- Soil and Dust Data Analysis Letter Report
- Indoor Dust Cleanup Level Support Document
- Preliminary Remediation Goal (PRG) memo
- Alternatives Analysis focused on action-specific ARARs, 9 criteria analysis, cost estimates for indoor and outdoor cleanups
- Pollution Report (initial POLREP) and Time Critical Removal Action (TCRA) supporting documents
- Any other historical documents, such as the Demonstrations of Methods of Applicability.
Contaminants of Potential Concern (COPC) memo

- **Purpose:** To identify the initial Contaminants of Potential Concern (COPCs) for Operable Unit (OU) 1- Community Soils

- EPA Region 8 recommends several criteria for evaluating the potential contaminants that should be kept as part of the baseline risk assessment:
  - Exceedance of ARARs, Historical evidence; Concentration and toxicity
  - **COPCs for OU1:** Antimony, arsenic, cadmium, copper, lead, manganese, nickel, thallium, and zinc
Bioavailability Memo

- Bioavailability is the amount of a contaminant absorbed into the body following skin contact, ingestion or inhalation.

- **Purpose:** Summarizes the results of oral bioavailability of lead and arsenic in residential soil samples for the Colorado Smelter site for OU1. Site specific.

  - Is shown as a percentage of how much of a contaminant is absorbed from soil as compared to how much of that contaminant is absorbed from food or water.
Geospeciation memo

- Study of the types of minerals present in the soil. Can be helpful in understanding the source.
- **Purpose:** Summarizes the preliminary results of geospeciation and mineral forms of lead and arsenic in soil samples in residential soil samples for the Colorado Smelter site for OU1. This was done on outdoor soil only.
- More than half of the source of lead and is called “pyrometallurgical” meaning the metal forms include slag and other smelter-related activities at the site.
Statistical analysis of outdoor soil and indoor dust

- **Purpose:** summarize the statistical analysis of dust data from the first 102 homes sampled for indoor dust within Operable Unit (OU) 1 of the Colorado Smelter Superfund Site “Site”.
- Results were compared to other Region 8 sites.
- Results indicate a weak correlation between outdoor soils and indoor dust. Since there is a weak correlation, it is advised that vacuum sampling be performed where possible.
What is a PRG? A chemical-specific initial cleanup goal that (1) is protective of human health and the environment and (2) complies with Applicable or Relevant and Appropriate Requirements (ARARs).

Purpose: Helps establish a site-specific cleanup level.

PRGs are initially developed on the basis of readily available information and are later modified to reflect the results of the baseline risk assessment.

PRGs are also used during the analysis of remedial alternatives in the RI/FS.
Alternatives Analysis

- Applicable or Relevant and Appropriate Requirements (ARARs).
  - *Federal and State legal requirements that related directly to actions or conditions at the site.*
- Cost estimates for indoor and outdoor cleanups
- Nine (9) evaluation criteria analysis →
  - Community acceptance is carefully considered and is an evaluation factor.

The nine evaluation criteria are as follows

**Threshold Criteria**
Overall protection of human health and the environment
Compliance with ARARs

**Primary Balancing Criteria**
Long-term effectiveness and permanence
Reduction of toxicity, mobility or volume through treatment
Short-term effectiveness
Implementability
Cost

**Modifying Criteria**
State acceptance
Community acceptance
Additional Documents included in the Administrative Record

Removal Documents:
- Pollution Report (initial POLREP)
- Time Critical Removal Action (TCRA) supporting documents

Indoor Dust Cleanup Level Support Document:

Provides the supporting documentation for the indoor dust cleanup level established as part of the time-critical removal.
Summary

- At the Colorado Smelter site, a new development is the Proposed Plan for the Early Action Interim ROD that will allow us to continue and expand cleanup work started through our Response Program.

- There will be an opportunity for the CAG and community to comment on the proposed plan.

- This Early Action Interim ROD will support and allow us to continue residential indoor dust cleanups, as well as begin outdoor soil cleanups in an expedited manner.
Questions???