



Community Engagement Updates

The Columbia Falls Aluminum Company (CFAC), in partnership with the Environmental Protection Agency (EPA) and the Montana Department of Environmental Quality (MDEQ), has been deeply involved in community engagement efforts throughout 2024. These initiatives have included listening sessions, site tours, and open houses as well as EPA-hosted tabling events and open office hours, all aimed at providing the community with a comprehensive understanding of the ongoing remediation process.

In addition to these efforts, the EPA has provided technical assistance through Skeo and TAG grant awards, ensuring community members have access to support and understanding of technical documentation.

April 24-25 Engagement Sessions

In April, CFAC hosted a series of listening and engagement sessions, attracting nearly 200 community members. The events included open house sessions and formal presentations where attendees could interact with experts and learn about the proposed remediation plans. Representatives from local, state, and federal offices were in attendance. Feedback from these sessions indicated a strong interest in topics like water quality and the remediation process, with 83% of survey participants leaving the event feeling well-informed.

June 12 CFAC Site Tours

Onsite tours of the CFAC property were conducted in June, offering community members an up-close look at the proposed remediation areas. The tours, which included local officials and community leaders, were well-received, with 95% of survey participants finding the tours met their expectations and 85% reporting an improved understanding of the site. Feedback highlighted the value of in-person experiences and knowledgeable guides.

July 17 Open House

Building on the success of earlier events, CFAC hosted an open house in July, focusing on one-on-one conversations with community members. Though attendance was lower than previous events, the positive feedback suggests that the community is becoming increasingly well-informed about the remediation efforts. Attendees praised the presenters' expertise, with 91% of survey respondents finding the information valuable and all respondents feeling their questions were answered.

Looking Ahead

CFAC remains committed to ongoing engagement and transparency as the remediation process continues. The strong turnout and positive feedback from recent events highlight the community's interest in the project and support for moving toward remediation. CFAC will continue to work closely with local and federal agencies, as well as community groups, to ensure that all stakeholders remain informed and involved.



Photo credit: Tristan Scott, Flathead Beacon

City and County Officials Advocate for Progress on CFAC Site Remediation

Support for the swift release of the Record of Decision (ROD) regarding the Columbia Falls Aluminum Company (CFAC) site continues to grow, with significant backing from various levels of government. From the Governor's office to the Columbia Falls City Council, elected officials have supported proceeding without further delay.

Mayor Barnhart's Call for Action

At the July 16 Flathead County Commission meeting, Columbia Falls Mayor, Don Barnhart, passionately advocated for moving forward with the remediation plan, emphasizing the years of scientific research and public engagement that have gone into developing the proposed solutions.

In his statement, Mayor Barnhart highlighted his involvement with the CFAC site since 2015, when the EPA was first brought in to assess and address environmental concerns. Reflecting on the extensive public meetings and the thorough scientific work carried out over the years, he urged the county commissioners to support the progression of the ROD.

Barnhart stressed that the information needed to understand and address the contamination issues at the site has always been available to the public. He noted that the public had ample opportunity to engage with the process and that the decision to move forward is now overdue.

Commissioners Back the ROD Release

Flathead County Commissioner Brad Abell echoed Mayor Barnhart's sentiments at the same meeting. Commissioner Abell acknowledged that the county's request for a pause in February had been honored, allowing for additional public engagement. However, after reviewing the situation, he concluded that delaying action poses a greater environmental risk than proceeding with the remediation. "Doing nothing is more of a risk to the environment than moving ahead," he stated, affirming his support for the ROD at this time.

Commissioner Randy Brodehl also expressed his appreciation for the public's input and the EPA's responsiveness to the county's request for a pause. However, he emphasized that it is now time to move forward with the plan. "I think it's time that we move ahead with this," he concluded.

Columbia Falls City Council Urges a Move Toward Remediation

The Columbia Falls City Council reaffirmed the urgency of advancing site remediation efforts during their meeting on August 5. In a decisive 5-1 vote, the council approved issuing a letter to the EPA, strongly urging the prompt release of the Record of Decision (ROD).

The letter stresses the critical importance of the ROD to facilitate both remediation and redevelopment at the site.

"We are calling for the immediate issuance of the Record of Decision so that final engineering and actual cleanup work can begin," the letter states. "The City Council acknowledges that without the ROD, all cleanup activities at the site remain at a standstill, and progress is effectively halted."

The Senators Weigh In

Senator Steve Daines expressed his desire for progress through a letter to EPA Region 8 Administrator, KC Becker. In that letter, Senator Daines states, “Since work can only begin on the recovery and restoration process of the superfund site once the final ROD is issued, this is an important timeline.”

Senator John Tester also took interest in the site’s future. Mick Ruis reports that the Senator sent a staff representative from Washington D.C. to Columbia Falls to meet with Mr. Ruis, a prospective developer, to discuss redevelopment plans and potential for the property following remediation.

A Unified Push for Progress

The unified call from city and county officials, along with state and federal representatives, underscores the critical importance of advancing the CFAC site’s remediation. With strong support across multiple levels of government, the community is hopeful that the EPA will soon release the Record of Decision, allowing the necessary engineering and cleanup work to begin in earnest.

What happens after a ROD is released

Over the past decade, the CFAC site has undergone complex and thorough investigation and review as Superfund rules require. Under the supervision of the Environmental Protection Agency (EPA), a Preliminary Assessment, Site Inspection, Remedial Investigation and Risk Assessment have been conducted. This led to the completion of a Feasibility Study and the development of a Proposed Plan.

With all the recent community discussion and media coverage, you may be wondering why a Record of Decision is so important and what happens once it is released.

A Record of Decision, or ROD, is a legal document formally selecting a cleanup remedy. Before any site work to mitigate the contaminated area can begin, a ROD must be released by the EPA. Until a Record of Decision is in place, progress toward site cleanup is on hold.

Once the EPA issues the ROD, the Potentially Responsible Parties (PRP) and the EPA will begin Consent Decree negotiations. A Consent Decree is a legal agreement that provides the framework for continued cleanup. Agreements are made under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requirements. This process may take a year or longer to complete.

With the consent decree in place, Remedial Design can begin. Remedial Design (RD) is the phase where the technical specifications for cleanup are developed. Remedial Action (RA), or the actual construction and implementation phase of the cleanup, will take place once RD is complete. The RD and RA are based on the specifications laid out in the Record of Decision. The RD process can take a couple of years to complete and the length of the RA is contingent upon the design specifications in the RD.

Each phase of the remediation process can be lengthy. Immediate issuance of the ROD will allow cleanup to move forward, opening the door for reuse and redevelopment of the site to benefit the Columbia Falls community.

Providing Additional Clarification

At an August 20, 2024, meeting hosted by the Coalition for a Clean CFAC (CCC), multiple slides were presented regarding the proposed cleanup plan. We would like to clarify the information provided on several slides. Text from the CCC slides is provided in italics and clarification is provided in standard type.

Slide 3: This slide states *“Highly toxic waste buried at the Columbia Falls Aluminum Company (CFAC) Superfund site threatens our water, our health, our community, and our economy, if the proposed cleanup plan does not provide viable and timely solutions.”*

It is important to recognize that the groundwater plume is located entirely on-site and is not threatening residential drinking water wells or public water supply wells. No water supply wells, public or private, are in the path of the groundwater plume. The groundwater plume meets drinking water standards upon discharge to the Flathead River. The EPA's Proposed Plan eliminates, and controls risks posed in certain, discrete areas of the site by past manufacturing operations. These areas are far removed from the Site boundary and pose no risk to the community.

Slide 4: This slide states *“Simply leaving the toxic waste in place threatens our water, our health, our community and our economy for generations to come”*. This slide also quotes statements regarding the Love Canal Superfund Site.

Slide 4 infers that EPA's Proposed Plan *“simply leaves the waste in place.”* Nothing could be further from the truth. EPA's Proposed Plan includes extensive remediation, installation of a multi-layer cap and other engineering controls and institutional controls, and long-term monitoring to ensure the protection of human health and the environment as required by law.

CFAC does not resemble the Love Canal Site. The inference that CFAC poses similar risks to the public as the Love Canal Site is inconsistent with the assessment of risks presented in the CFAC Baseline Risk Assessment. Prior to modern-day environmental laws and regulations, the Love Canal community was built on top of the historical toxic waste disposal area, resulting in both acute and chronic exposure to contaminants. Love Canal has played a singularly important role in shaping laws and regulations that prevent such situations from ever happening again. Because of Love Canal and the Superfund Law, EPA has more than 40 years of experience cleaning up thousands of sites across the country.

Slide 21: The last sentence within the first bullet on this slide states “*The Center Landfill will stay as it currently is.*”

That sentence is incorrect, as EPA’s Proposed Plan includes construction of a new multi-layered cap on the Center Landfill.

Slides 23 and 24: These two slides present five separate paragraphs that question the potential effectiveness of a slurry wall as a component of the remedy.

The goal of the slurry wall is to contain groundwater impacts below the West Landfill and WSSP Landfill, cutting off the source of the groundwater contamination to speed the cleanup of the downgradient groundwater plume. Many years of experience with remediation since the inception of Superfund demonstrate the usefulness of slurry walls to mitigate the source of groundwater contamination to clean up groundwater plumes.

EPA’s Proposed Plan of installing a multi-layered cap on the existing landfills will effectively prevent the generation of new groundwater impacts from precipitation infiltrating through the waste. Installing the new cap or even moving the waste to a new on-site landfill does not address existing groundwater impacts; the slurry wall does. In addition, a new cap or moving the waste does not address future groundwater impacts from contaminated soil that likely extends beneath the seasonal high-water table under the West Landfill and WSSP Landfill; the slurry wall does.

Slide 23. The key to the slurry wall’s success hinges on tying it into the Aquitard which is 125 to 150 feet below the ground’s surface. This is pushing the limits of this technology. EPA provided (4) examples of slurry walls reaching these types of depths, (3) of which were tied at the bottom into bedrock, not an aquitard. An aquitard can have many variations in its thickness and composition and is semi-impermeable.

The 150-foot depth was the upper limit estimated during the FS. As stated in EPA’s proposed plan, the depth is typically between 100 and 125 feet. Regardless, the technology has been proven effective at depths similar to and exceeding those required at the CFAC Site.

This issue was addressed by CFAC's geotechnical engineering consultant, Mueser Rutledge Consulting Engineers (MRCE), during the EPA's public meetings in April and July 2024. MRCE presented information showing it had designed 38 slurry walls for the containment of groundwater contamination source areas and 102 slurry walls for other purposes. Of the 38 containment slurry walls designed by MRCE, four extended to depths ranging between 145 feet and 159 feet. Numerous slurry walls have been successfully installed where the closure or "key" stratum has been an unconsolidated aquitard, such as glacial till, rather than bedrock. In fact, excavating the key into a low permeability unconsolidated aquitard is more easily accomplished than a key into bedrock.

Slide 23. The slurry wall will be placed in glacial till, a mixture of materials with rocks of unknown sizes. Rocks can protrude into the slurry wall causing leaks.

While the hypothetical situation of protruding rocks is prevented by the slurry wall construction process, no leaks could occur in that situation as there would be no gap between the rock and the slurry and the rock would be as impervious (or more so) than the slurry wall. In any case, the slurry wall construction process breaks up (if necessary) and removes large rocks or boulders that may be encountered while excavating the trench. The hydrostatic head of the bentonite slurry within the trench creates an outward pressure that stabilizes the walls of the trench during construction. Measurements are taken continually throughout the process to ensure the trench remains clear for installation of the soil bentonite backfill. Once in place, the soil bentonite backfill exerts an outward pressure, similar to or greater than that of the bentonite slurry, that prevents rocks in the trench sidewalls from moving into the finished slurry wall.

In short, the construction is performed in a manner to prevent large rocks from protruding through the slurry wall and even if they did, they would not cause leaks.





Slide 24. Leaks will allow hazardous waste to migrate out into the groundwater.

New leachate generation is prevented through the construction of the new multi-layered cap which is essentially the same cap design that would be used for a new on-site containment cell such that either approach provides equal protection from the generation of new leachate. The role of the slurry wall is to contain the groundwater impacts which are not addressed by capping of the waste or by excavating the waste. Furthermore, groundwater extraction from inside of the slurry wall would prevent outward flow into the surrounding groundwater.

Slide 24. There is the possibility that this waste will go undetected for long periods of time, impacting the groundwater, human health and the environment.

Under either EPA's Proposed Plan or a new containment cell, groundwater monitoring at the immediate downgradient boundary is the standard method through which releases are identified. This standard approach precludes the possibility that releases would go undetected for longer periods of time. The slurry wall is designed to speed cleanup of the existing groundwater plume.

Slide 24. A study performed by Roux on Slurry Wall Effectiveness found that of (48) sites studied, $\frac{1}{4}$ were considered ineffective after (5) years of use. Most from not being properly tied in at the bottom. Data is only available for a little over (20) years of use and long-term effectiveness is unknown because of this being a more recent technology.

The above paragraph from Slide 24 misrepresents the August 2023 fact sheet prepared by Roux, titled “*Fact Sheet: Slurry Wall Effectiveness*”. As one component of that Fact Sheet, Roux summarized the evaluation of the five-year periodic review reports on 48 Superfund Sites that included a slurry wall as part of the remedy. The above statement: “*of (48) sites studied, ¼ were considered ineffective after (5) years of use*” is a gross misrepresentation of the information contained in the Fact Sheet. The Fact Sheet actually states:

- 36 of the 48 slurry wall remedies were considered effective by the USEPA in Five-Year Review (5YR) reports (i.e., the remedy is functioning as designed in the ROD).
- 9 of the 48 slurry wall remedies (19%) were noted as requiring follow-up investigation or additional study in order to fully demonstrate effectiveness, due to: EPA requiring additional study to confirm hydraulic gradient was achieved; USEPA requiring upgrades to extraction systems or to portions of the slurry wall to optimize groundwater gradient and capture; or a lack of data confirming that the containment was successful (i.e., lack of water level or contaminant data). Note that EPA did not characterize these remedies as ineffective; rather just that additional work was required as noted above.
- EPA characterized 3 of 48 (6%) slurry wall site remedies as ineffective in their five-year reports due to: a lack of hydraulic control or contaminant migration across/through/under the slurry wall; or improper construction of the slurry wall (i.e., slurry wall not keyed into the confining layer) resulting in contaminant migration outside the wall.

The fact sheet acknowledges that, given the relatively young age of the technology, there is limited data regarding long-term effectiveness. That is why it is important that groundwater monitoring be continued around these landfills. However, it is noted herein that the three oldest slurry walls included in 48 sites evaluated (i.e., Lipari Landfill, Lone Pine Landfill and Pollution Abatement Services) are all 40+ years old and still effective.



Slide 25: The third bullet on this slide states that excavation and onsite consolidation of waste in an Onsite RCRA Approved Landfill (Alternative LDU1/GW-6) wasn't chosen by EPA *"because it is more expensive than the slurry wall and ranked lower for short term effectiveness."*

EPA's Proposed Plan determined that Alternative 6 (Excavation with On-Site Consolidation) is the least cost-effective alternative. EPA has explained that a remedy is cost-effective not in being the lowest cost but when the overall effectiveness of the remedy is proportional to its total cost. EPA's Proposed Plan did state that *"The costs for Alternative 6 dwarfs the costs for the other alternatives..."* Selecting the least cost-effective alternative would be contrary to law under Superfund. Cost plays an important role in the selection of remedies under existing law and policy. Cost is one of the five principal and co-equal requirements of the NCP. Superfund mandates that remedies be cost-effective.

In addition to being more than three times expensive and ranked lower for short-term effectiveness, Alternative LDU1/GW-6 was also ranked lower for implementation. Research has not identified any other sites where previously landfilled Spent Pot Liner was excavated at the scale required under this alternative. It would be technically infeasible to prevent infiltration of water through waste and impacted soils which would increase groundwater contamination during remedial action. Large quantities of water generated during construction would need to be collected for treatment of cyanide, fluoride, and arsenic prior to discharge, further complicating the implementation of this alternative. The potential need for enclosed work areas and/or limitations on exposed waste areas would complicate and slow the implementation of the excavation alternative and increase costs beyond those currently estimated. Pre-treatment of SPL-impacted material has not been included under this alternative. If a pretreatment step should be required for all or some of the excavated material, the technical feasibility of this alternative would be even more questionable.

Slide 27: This slide lists what CCC considers to be the advantages of an Onsite RCRA Approved Landfill; including they consider it to be the most protective of all onsite options and protective of groundwater.

Most protective is not the standard for remedy selection under Superfund law and regulations. Superfund requires the remedy to be protective of human health and the environment. Superfund requires EPA to select a protective remedy that provides the best balance of the co-equal balancing criteria. EPA's Proposed Plan provides protection equivalent to Alternative 6 as each would be capped with a multi-layer cap.

In Slide 27, the statement that the Onsite RCRA Approved Landfill (Alternative 6) is the most protective of all onsite options does not consider the potential risks human health and the environment during the several additional years of construction required to implement this alternative. This includes risks to workers associated with the extensive heavy equipment operations over several years and the health and safety risks associated with potential exposures to toxic waste during that period.

Contrary to Slide 27, Alternative 6 is less protective of groundwater than EPA's proposed remedy. EPA's Proposed Remedy controls the source of the existing groundwater plume which reduces the groundwater cleanup time as compared to Alternative 6. Furthermore, during construction, the infiltration of water through waste and impacted soil would increase groundwater impacts during the several years required to implement this remedial. If the excavation missed any pockets of source material, it would take even longer to clean up the groundwater.

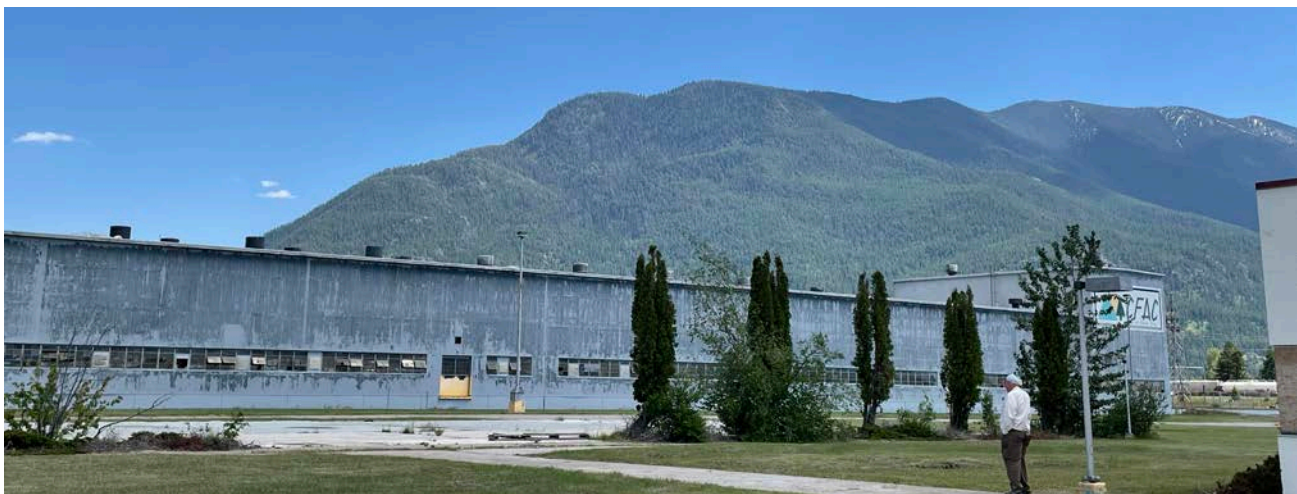
¹ Federal Register, December 21, 1998, Proposed Rule, National Oil and Hazardous Substances Pollution Contingency Plan, 53 FR 51394-51520. 1996, The Role of Cost in the Superfund Remedy Selection Process, Quick Reference Fact Sheet, EPA 540/F-96/018, PB96-963245, United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, September 1996.

² 1996, The Role of Cost in the Superfund Remedy Selection Process, Quick Reference Fact Sheet, EPA 540/F-96/018, PB96-963245, United States Environmental Protection Agency, Office of Solid Waste and Emergency Response, September 1996.

³ Federal Register, March 8, 1990, Final Rule, National Oil and Hazardous Substances Pollution Contingency Plan, 55 FR 8666-8865. Federal Register, December 21, 1998, Proposed Rule, National Oil and Hazardous Substances Pollution Contingency Plan, 53 FR 51394-51520.

Slide 33: The second bullet on this slide states “*The excavation of both the West Landfill and Wet Scrubber Sludge Pond Material is in EPA's top (6) alternatives. This alternative would not have been considered if the explosive nature of the material made this option too dangerous to perform.*”

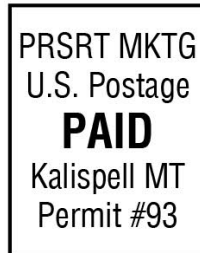
EPA's Proposed Plan recognized the potential risks and issues associated with excavating the waste and scored it very low for two of the co-equal balancing criteria of Short-Term Risk and Implementability. There are numerous human health and environmental risks associated with the landfill excavation alternative. While none of the risks may make the excavation “too dangerous to perform,” the fact remains that undertaking such an action will put numerous workers at risk and increase impacts to groundwater. These human health and environmental risks are avoided by EPA's Proposed Plan.



Additional Project Details

To learn more about this project or review cleanup alternative rankings in detail, visit the project website at > CFACproject.com

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