

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street San Francisco, CA 94105

September 15, 2016

MEMORANDUM

SUBJECT: Request for Approval of Project Ceiling Increase Action Memorandum to continue the Non-Time Critical Removal Action at the Eureka Smelters Site (aka Town of Eureka), Eureka NV

FROM: Enrique Manzanilla, Director
Superfund Division



THRU: Reggie Cheatham, Director
Office of Emergency Management



James E. Woolford, Director
Office of Superfund Remediation and Technology Innovation



TO: Mathy Stanislaus, Assistant Administrator
Office of Land and Emergency Management

I. PURPOSE

The purpose of this Action Memorandum is to request and to document approval of the Project Ceiling Increase of \$4,500,000 described herein to mitigate threats to human health and the environment posed by the presence of lead and arsenic in soil at the Eureka Smelters Site, aka Town of Eureka, (the "Site") located in Eureka, NV. The work to be performed under this Ceiling Increase will be a continuation of work under a previous Non-Time Critical Removal Action (NTCRA) Memorandum signed on June 7, 2016. The work at the Site was originally initiated under a Time Critical Removal Action (TCRA) Memorandum signed on June 30, 2013. Approval of this request will bring the total approved removal action ceiling to \$13,450,000.¹

¹ "Removal Action Ceiling Costs," as defined by the September 2009 Superfund Removal Guidance for Preparing Action Memoranda, includes only direct extramural costs. As discussed in this memorandum, additional costs may be incurred as recoverable as "incurred response costs."

The June 7, 2016 NTCRA Memorandum (Attachment A), which brought the Project Ceiling up to \$8,950,000, provided a Ceiling Increase above \$6 million and an Emergency Exemption from the \$2 Million Statutory Limit. The NTCRA Memorandum was based on the U.S. Environmental Protection Agency's (EPA's) March 2016 Engineering Evaluation/Cost Analysis (EE/CA) for the Site, public comments received pursuant to 40 CFR 300.415(n)(4), and the administrative record for the Site.

The EE/CA Approval Memo was signed on February 26, 2014 and the EE/CA was completed in March 2016. During the preparation of the EE/CA, EPA met periodically with an advisory panel appointed by Eureka County so the community could have input on the EE/CA as it was being prepared. EPA held a sixty day public comment period on the EE/CA.

The NTCRA Memorandum selected the removal actions for each of the five operable units (OUs) identified in the EE/CA – OU-1: Residential Properties, OU-2: Slag Piles, OU-3: Undeveloped Parcels within or adjacent to former smelter and mill sites, OU-4: Eureka Creek and OU-5: Contaminated Material Disposal - and approved \$3,000,000 toward the work.

Prior to approval of the NTCRA Memorandum, cleanup of residential properties (OU-1) was accomplished under four previous Time Critical Action Memoranda, approved on July 30, 2013, April 9, 2014, June 12, 2015, and April 29, 2016. The work conducted up until the approval of the NTCRA Memorandum included cleanup of 43 residential properties, and a portion of the Eureka Elementary School. The total removal action ceiling authorized under the previous four Time-Critical Action Memorandums was \$5,950,000.

Currently, EPA is in the field conducting cleanup under the June 2016 NTCRA Memorandum, which provided partial funding to continue work on OU-1 (to address approximately 40 residential properties), to initiate work on OU-3 (to address the Hillside No. 2 portion of OU-3), and to initiate and complete work on the largest portion of OU-5 (to construct the local landfill for contaminated material disposal). Removal activities for the 2016 field season are nearing completion, with EPA expecting to demobilize from the site in early October. By that time, EPA expects to have cleaned up approximately 40 residential properties, completed construction of the large repository and completed placement of approximately 19,000 cy of contaminated soil into the repository. This soil volume includes all soil excavated during the 2016 field season, as well as all soil excavated in 2013 and 2014, which was stored in temporary stockpiles. This large volume of soil required construction of a large repository cell, which has been constructed and filled and will be capped at the end of this field season. In future field seasons, smaller cells will be constructed adjacent to the large repository, to accommodate soils excavated each season, with each cell to be closed and capped at the end of the season.

The additional funding requested under this Ceiling Increase Action Memorandum is necessary to conduct pre-planning and procurement activities for the 2017 field season and to continue performance of removal activities identified in the 2016 NTCRA Memorandum, during the 2017 field season. These removal activities would include cleanup of an additional 40 residential properties, placement of the contaminated soil from these properties into the repository and completion of work on Hillside No. 2.

This Ceiling Increase provides additional funding in the amount of \$4,500,000 to continue implementing the selected removal action. Pursuant to EPA delegation 14-2 and Regional Delegation 1290.03A, the authority to approve a removal action ceiling greater than \$6 million and requiring an emergency waiver rests with the Assistant Administrator of the Office of Land and Emergency Management.

II. SITE CONDITIONS AND BACKGROUND

See EPA's June 2016 NTCRA Memorandum (attached)

A. Other Actions to Date

1. Previous Actions

From September 2013 through early November 2013 and from April 2014 through July 2014, EPA's Emergency Response Program conducted the following removal activities at the Site:

- Excavation of one foot of contaminated soil at 43 residential properties and at a portion of the Eureka Elementary School, replacement of excavated soil with clean backfill, and replacement of landscaping that was damaged during the excavation.
- Sampling and analysis of excavated areas to document contaminant levels at the base of the excavation.
- Placement of barrier tape at the base of excavation areas where soil contaminant concentrations remained above the site cleanup levels of 425 mg/kg lead or 234 mg/kg arsenic.
- Placement of excavated soil in temporary storage areas located at the north end of town.
- Air sampling and monitoring of all operations to monitor for off-site emissions of hazardous substances.
- Sampling of 90 additional residential properties.

As described in the April 2016 TCRA Memorandum and the June 2016 NTCRA Memorandum, from May to October, 2016, EPA expects to complete the following activities:

- Excavation of one foot of contaminated soil at approximately 40 additional residential properties, replacement of excavated soil with clean backfill, and replacement of landscaping that was damaged during the excavation;
- Construction of a repository to accept contaminated soil excavated from residential properties;
- Hauling of previously excavated contaminated soil from existing stockpiles to the repository;
- Closing and capping of the largest section of the repository;
- Placement of signs on Hillside 2 warning of the presence of contamination;
- Sampling additional residential properties.

2. Current Actions

As described under Previous Actions above, the work being done during the current construction season is occurring under the authority of the April 2016 TCRA Memorandum and the June 2016 NTCRA Memorandum. This work includes additional sampling of multiple additional residential properties, many of which have been found to have concentrations of lead and arsenic above established action levels and which will require cleanup in the future.

The Proposed Actions section of the June 2016 NTCRA Memorandum provided information on the number of known and estimated properties that would fall within the three prioritization tiers for cleanup and requested funding to conduct cleanup at approximately 40 Tier 1 and Tier II properties. The projected total of properties requiring cleanup is 227. As of the end of the 2016 season, and including work done in previous seasons, approximately 83 of these properties will have been cleaned up and restored.

Based on the projection of 227 total properties above action levels, the June 2016 NTCRA Memorandum provided an estimated total cost of \$18,986,000 for all OU-1 Residential Property work, assuming that 90% of Tier I, II and III property owners would accept cleanup. More broadly, the June 2016 NTCRA Memorandum provided a total cost estimate of \$24,822,000 for completing work on all operable units. The June 2016 NTCRA Memorandum anticipated an incremental funding approach; this current ceiling increase request is part of that incremental funding plan.

The total removal action project ceiling approved in the June 2016 NTCRA Memorandum of \$8,950,000 is significantly less than the total cost estimate. Approval of this ceiling increase would allow for funds to be allocated to address cleanup of many properties that have already been sampled and found to be above established action levels, as well as additional sampling and cleanup of any properties found to have elevated concentrations of lead and arsenic.

The Project Schedule section of the June 2016 NTCRA Memorandum stated that the work described in that Memorandum would be performed in the summer and fall of 2016. It also stated that, if additional funding is approved, the full scope of the cleanup required to address properties above action levels would be implemented over several years. The Estimated Costs section of the same document states that it authorizes partial funding for OU-1, OU-3 and OU-5 and that remaining funding, if approved, will be incrementally provided over several years. *As stated above, this request for a ceiling increase is consistent with the incremental funding approach approved in the June 2016 NTCRA Memorandum.*

This request for a ceiling increase aims to provide funds to continue to clean up as described in Section VI below. More specific information can be found below, under Proposed Actions.

B. State and Local Authorities' Roles

See June 2016 NTCRA Memorandum

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

See June 2016 NTCRA Memorandum

IV. ENDANGERMENT DETERMINATION

See June 2016 NTCRA Memorandum

V. EXEMPTION FROM STATUTORY LIMITS

See June 2016 NTCRA Memorandum

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Action

1. Proposed Action Description

The June 2016 NTCRA Memorandum selected the removal actions for all five OUs identified in the EE/CA. This Ceiling Increase provides and continues ongoing partial funding for OU-1, OU-3 and OU-5. At present, it is anticipated that this NTCRA will be conducted incrementally by EPA as a Fund-lead cleanup action; however, future work on the Site is contingent upon available funding.

OU-1: RESIDENTIAL PROPERTIES

During the 2017 field season, EPA plans to conduct cleanup of an additional 40 residential properties with concentrations above established action levels. All properties which have been sampled will be sorted into Tier I, II and III to allow for prioritization of cleanup work. The pre-planning and procurement activities required for this work will be carried out during the winter of 2016-2017 and early spring 2017, prior to the field season, in order to maximize the time available to conduct field work and address contaminated properties.

As stated in the June 2016 NTCRA Memorandum, contaminated properties will be excavated to approximately 1 foot below ground surface. In accordance with the Superfund Lead-Contaminated Residential Sites Handbook, in select areas such as vegetable gardens or children's play areas, an additional 1 foot of soil may be excavated. Soils will not be excavated from beneath permanent structures such as houses, or semipermanent structures such as rock walls, storage sheds, or gravel driveways. Excavated areas will be covered with 1 foot of imported clean fill material(s). Barrier tape will be placed at the base of any excavated areas where soil contaminants remain in excess of the site cleanup levels.

In previous field seasons, EPA had to rely on backfill materials trucked in from off-site. During the 2017 field season, EPA intends to set up a crusher and screen plant to enable processing of on-site materials, to more economically produce backfill materials needed for residential yard

restoration, as well as materials needed for work in other OUs.

OU-3: UNDEVELOPED PARCELS WITHIN OR ADJACENT TO FORMER SMELTER AND MILL SITES

EPA has identified OU-3 as four individual undeveloped parcels totaling 20.62 acres within or adjacent to the footprints of former smelter and mill sites. These parcels require special consideration due to their relatively steep slopes, location near or adjacent to residential properties and schools, common recreational usage, public accessibility, and high contaminant concentrations that suggest these parcels may be ongoing contaminant sources through potential wind-borne entrainment of fine particles or runoff that contains lead and arsenic.

During the 2016 season, EPA posted signs indicating the presence of contamination on Hillside 2. EPA had planned to conduct additional work on Hillside 2, including excavation of the level area at the top of Hillside 2 to 1 foot below ground surface and backfilling of excavated areas with clean fill material, as well as covering steeper slopes on Hillside 2 with a minimum of 1 foot of 4-8 inch rock, in order to stabilize the slope and minimize dust transport off the slope. However, this work was not completed during 2016 for a number of reasons, the most critical of which was identification through soil sampling of additional Tier I residential properties, which were given higher priority for cleanup. Further, the residential properties cleaned up during the 2016 field season were significantly larger on average than those from previous seasons, with the average lot in 2016 being 10,000 square feet, compared to 6,900 square feet in 2014. This difference meant that residential properties took longer to excavate and restore on average.

As a result, although EPA expects to hit the target of 40 residential properties cleaned up in 2016, the identification of more Tier I properties and the larger average property size meant there were not sufficient resources to complete work on Hillside 2. EPA plans to complete the work on Hillside 2 in 2017.

OU-5: CONTAMINATED MATERIAL DISPOSAL

All contaminated soil excavated during the course of cleanup work during the 2017 field season (and any future seasons) will be transported to the repository for disposal. The repository, which was constructed during the 2016 field season, is designed to be extended as needed, with additional excavated material placed at the northern toe of the existing slope. This allows the capacity of the repository to accommodate materials excavated over multiple field seasons. In order to accept excavated soil, the repository will be expanded during the 2017 field season. After excavation for 2017 is complete, the new section of the repository will be closed and capped according to the design.

2. Contribution to remedial performance

If the removal actions selected in the June 2016 NTCRAMemorandum are fully implemented, EPA does not anticipate proposing listing the Site for the National Priorities List (NPL). These actions are anticipated to be consistent with any additional future remedial actions, should such actions be necessary.

3. Applicable or relevant and appropriate requirements (ARARs)

See June 2016 NTCRA Memorandum

4. Project Schedule

The work described in this Project Ceiling Increase Action Memorandum will include procurement and planning activities in the winter of 2016-2017 and field work from approximately May to October 2017, as a continuation of the current, ongoing cleanup activities under the June 2016 NTCRA Memorandum. If additional funding is approved for the remaining work, the full scope of the removal actions selected in the June 2016 NTCRA Memorandum may be implemented over a period of several additional years.

B. Estimated Costs

Cost estimates used in this Project Ceiling Increase Action Memorandum and the NTCRA Memorandum are based on extramural cleanup costs that were provided in the EE/CA. The types of costs that were assessed were in accordance with the requirements for similar actions found in 40 CFR 300.430 (e)(9)(iii)(G) and include the following:

- Capital costs, including both direct and indirect costs
- Annual O&M costs
- Net present value (NPV) of capital and O&M costs

Extramural Costs	Current Ceiling	Proposed Increase	Proposed Ceiling
<u>Regional Allowance Costs</u>			
ERRS and Subcontractors	8,100,000	4,200,000	12,300,000
<u>Extramural Costs not from the Regional Allowance</u>			
START	800,000	300,000	1,100,000
Pacific Strike Team	50,000	0	50,000
Total Extramural Removal Ceiling	\$8,950,000	\$4,500,000	\$13,450,000

The funding for work to be conducted in 2017 (\$4,500,000 under this Project Ceiling Increase Action Memorandum if approved) plus \$5,000,000 spent in 2016 under the preceding Time Critical Removal Action and the NTCRA Memorandum would be subtracted from the total estimated cost in the EE/CA of \$24,822,000. This would leave an outstanding extramural estimated cost of \$15,322,000 needed to complete the full scope of the removal actions selected in the June 2016 NTCRA Memorandum.. As mentioned above, it is

anticipated that this NTCRA will be conducted incrementally by EPA as a Fund-lead cleanup action; however, future work on the Site is contingent upon available funding. Such funding will be requested in subsequent Action Memoranda.

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this Project Ceiling Increase Action Memorandum is not approved, then removal activities will cease after funding associated with the NTCRA is exhausted. Cessation of response activities will result in continued and ongoing exposure by Eureka residents, including children, to high levels of lead and arsenic.

VIII. OUTSTANDING POLICY ISSUES

Given limitations on funding and weather constraints for conducting field work, implementing the full scope of the removal actions selected in the June 2016 Action Memorandum will require ceiling increases over the course of several years.

IX. ENFORCEMENT

Please see the Enforcement Confidential Addendum attached as Attachment G to the 2016 NTCRA Memorandum. In addition to the extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

<u>Intramural Costs</u>	<u>Original Cost</u>	<u>Additional Costs</u>	<u>Total Costs</u>
U.S. EPA Direct Costs ³	325,000	75,000	400,000
U.S. EPA Indirect Costs (59.51% of 8,950,000 + 325,000)	5,519,552	2,722,583	8,242,135
Total Intramural Cost	<u>\$5,844,552</u>	<u>\$2,797,583</u>	<u>\$8,642,135</u>

The total EPA extramural and intramural costs for this removal action that will be eligible for cost recovery, based on full-cost accounting practices, are estimated to be \$22,092,135.

$$(\$13,450,000 + \$400,000) + (59.51\% \times \$13,850,000) = \$22,092,135$$

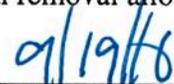
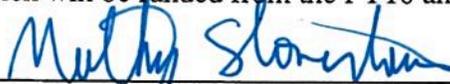
³ Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of Site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

X. RECOMMENDATION

Site conditions continue to meet the NCP section 300.415(b) criteria for a removal and the criteria for a CERCLA section 104(c) emergency exemption, and I recommend your approval of the proposed project ceiling increase of \$4,500,000. The total project ceiling if approved will be \$13.45 million, which will be funded from the FY16 and FY17 Regional removal allowance.

Approve: _____

Mathy Stanislaus, Assistant Administrator
Office of Land and Emergency Management



Date

Disapprove: _____

Mathy Stanislaus, Assistant Administrator
Office of Land and Emergency Management

Date

Attachments:

Attachment A: June 7, 2016 Non Time Critical Action Memorandum and associated attachments

Bcc: Site File
Larry Bradfish, ORC-3
Tom Dunkelman, SFD-9-2
Bret Moxley, SFD-9-2
Celeste Temple, SFD-9-4 Barbara Lee, SFD-9-4
Ramon Albizu, SFD-9-4