



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

MEMORANDUM

DATE: SEP 16 2019

SUBJECT: Request for Ceiling Increase Approval to Continue the Removal Action at the Iron King Mine-Humboldt Smelter Superfund Site, Dewey-Humboldt, Arizona.

FROM: *For* Jason Musante, On-Scene Coordinator *DAM*
Emergency Response Section II (SFD-9-2)

THRU: Dan Meer, Assistant Director *DAM*
Emergency Response Planning & Preparedness Branch (SFD-9)

TO: Enrique Manzanilla, Director
Superfund & Emergency Management Division (SFD-1)

I. PURPOSE

The purpose of this memorandum is to request a ceiling increase of \$480,000 direct extramural costs to continue response actions to mitigate threats to human health and the environment posed by the presence of lead and arsenic in soil at the Iron King Mine-Humboldt Smelter Superfund Site (the "Site"), located in Dewey-Humboldt, Yavapai County, AZ. Approval of this request will bring the total removal action ceiling to \$4,905,000.¹

The United States Environmental Protection Agency ("EPA") Region IX initiated a removal action at the Site pursuant to Section 104(a)(1) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9604(a)(1), to mitigate threats to human health and the environment posed by the presence of lead and arsenic in soils, tailings, and ash at the Site. EPA Region IX previously approved the response action for the Site with an exemption from the 12-month limitation for removal actions stated at 42 U.S.C. § 9604(c)(1). See, REQUEST FOR A 12-MONTH EXEMPTION ACTION MEMORANDUM FOR THE IRON KING-HUMBOLDT SMELTER SUPERFUND SITE, DEWEY-HUMBOLDT, YAVAPAI

¹ "Removal Action Ceiling Costs," as defined by EPA's Action Memorandum Guidance (September 2009), includes only direct extramural costs. As discussed in this memorandum, additional costs may be incurred and recoverable as "incurred response costs."

COUNTY, ARIZONA, dated September 25, 2012 (the “12-month Exemption”), included as Attachment A to this memorandum, with REQUEST FOR A TIME-CRITICAL REMOVAL ACTION ACTION MEMORANDUM FOR THE IRON KING-HUMBOLDT SMELTER SUPERFUND SITE, DEWEY-HUMBOLDT, YAVAPAI COUNTY, ARIZONA, dated July 26, 2011 (the “Action Memorandum”) included as an exhibit to the 12-month Exemption. EPA Region IX subsequently authorized an exemption from the \$2 million limitation for removal actions stated 42 U.S.C. § 9604(c)(1)(A) and authorized a ceiling increase that obligated a total of up to \$4,425,000 in direct extramural costs for the response action on January 24, 2017. PROJECT CEILING INCREASE APPROVAL, FUNDING, AND EXEMPTION FROM THE \$2 MILLION STATUTORY LIMIT TO CONTINUE THE REMOVAL ACTION AT THE IRON KING-HUMBOLDT SMELTER SUPERFUND SITE, DEWEY-HUMBOLDT, ARIZONA (the “First Ceiling Increase”), included as Attachment B to this memorandum.

The additional funding requested in this memorandum is necessary to provide for continued dust suppression of fine-grained ash and tailings at select source areas to limit the impact to the community from arsenic and lead contaminant deposition resulting from air particulate migration. It will also add site fencing to prevent direct contact exposure.

II. SITE CONDITIONS AND BACKGROUND

Site Status: NPL
Category of Removal: Time-Critical
CERCLIS ID: AZ0000309013
SITE ID: 09MX

The Iron King Mine-Humboldt Smelter Superfund Site (Site) is located in Dewey-Humboldt, Yavapai County, Arizona. The Site description and characteristics are summarized in the previous Action Memorandum. To synopsise, Site features include the Iron King Mine and vicinity, the Humboldt Smelter, impacted surface waterways and residential properties.

Previous removal actions took place at the Site in 2006, 2011, and 2017, each focusing predominantly on residential properties. In 2006, Emergency Response Section (ERS) conducted sampling at 17 residential properties in the vicinity of the Chaparral Gulch and directed excavation of contaminated soils from 4 of these properties under an enforcement agreement with the Ironite Products Company. In 2011, ERS conducted removal actions at 11 additional residential properties in the vicinity of Sweet Pea Lane. These properties were located within the alignment of the smelter and ore cart conveyance rail tracks. Also in 2011, one distinct tailings pile, located on the former Iron King Mine property but adjacent to one residential property, was removed. Excavated soils from each of these actions were placed adjacent to the existing large tailings pile at the Iron King Mine. A temporary dust/erosion control agent was applied to the ash and tailings deposits at the Humboldt Smelter. Further Remedial Investigation activities at the Site took place in multiple phases between 2012 and 2016. In 2017, ERS conducted removal actions at 35 additional residential properties throughout the town.

Previous applications of dust and erosion control agents were temporary solutions that have degraded over time, reducing their efficacy. As a result, the hazardous substances are uncontrolled and the potential for mobilization of fine-grained ash and tailings has increased. The application of more durable soil stabilizer products and/or cover materials will prevent or limit the particulate migration. Additionally, fencing will limit the access to the Humboldt Smelter area and thus reduce the exposure potential. Ash and tailings deposits in the Humboldt Smelter area of the Site contain high levels of arsenic and lead, which are hazardous substances. Persons living nearby or engaging in recreational activities in this area are likely to come into contact (ingestion and inhalation exposure) with the uncontrolled hazardous substances present.

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

Conditions at the Site represent a release, or a substantial threat of a release of a CERCLA hazardous substance to public health, welfare, or the environment based on the factors set forth in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR § 300.415(b)(2). Specific factors of the release, including the potential exposure of hazardous substances to populations, animals or the food chain are addressed in the previous Action Memorandum.

IV. ENDANGERMENT DETERMINATION

The 2011 Action Memorandum discusses threats to human health posed by high concentrations of lead and arsenic in ash and tailings deposits at the Humboldt Smelter area. See Section III of the 2011 Action Memorandum. EPA has previously determined that these hazardous substances pose a threat of release and an imminent and substantial endangerment to the public health or welfare or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

Section 104(c) of CERCLA generally restricts federal lead removal actions to a total extramural direct cost of \$2 million and/or 12-months per 42 U.S.C. § 9604(c)(1). The removal continues to meet the emergency exemption criteria as documented in the 12-month Exemption and the First Ceiling Increase. Pursuant to Section 104(c)(1)(A) of CERCLA and 40 C.F.R. § 300.415(b)(5)(i), application of the emergency exemption continues to be appropriate when: 1) there is an immediate risk to public health or welfare or the environment; 2) continued response actions are immediately required to prevent, limit, or mitigate an emergency; and 3) such assistance will not otherwise be provided on a timely basis. There continues to be an immediate risk posed by the conditions at the Site, including no timely source of non-federal response funds, and the approval of this ceiling increase is necessary to abate these threats.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

To control dust and erosion migration either a non-toxic, non-hazardous temporary soil stabilization agent or a cover material will be applied over the ash and tailings areas on the Humboldt Smelter. To limit access to the area, fencing will be installed in strategic locations. Physical and topographical features/obstacles at the property will dictate the practicability of implementation for these actions. All activities will be performed in conformance with prescribed health and safety procedures.

B. Estimated Costs with Ceiling Increase

	Current Ceiling	Proposed Increase	Proposed Ceiling
<u>Regional Removal Allowance Costs</u>			
ERRS	\$3,418,000	\$350,000	\$3,768,000
START	\$ 270,000	\$ 50,000	\$ 320,000
Extramural Subtotal	\$3,688,000	\$400,000	\$4,088,000
Extramural Contingency (20%)	<u>\$ 737,000</u>	<u>\$ 80,000</u>	<u>\$ 817,000</u>
TOTAL, Removal Action Project Ceiling	\$4,425,00	\$480,000	\$4,905,000

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

If the ceiling increase requested in this memorandum is not granted, the response action for the stabilization of tailings and ash at the Humboldt Smelter area would not be completed in a timely manner. Accordingly, the threats of exposure to high concentrations of lead and arsenic documented in the Action Memorandum will continue to be unabated.

VIII. OUTSTANDING POLICY ISSUES

At this time, there are no identified outstanding policy issues with the Site.

IX. ENFORCEMENT

Please see the Enforcement Confidential Addendum attached to the Action Memorandum and an updated Enforcement Confidential Addendum attached to this document as Attachment A for a discussion regarding potentially responsible parties and

anticipated enforcement. In addition to the extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

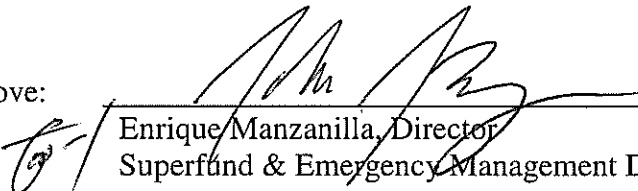
<u>Intramural Costs</u>	Original Cost	Additional Costs	Total Costs
U.S. EPA Direct Costs ²	\$ 150,000	\$ 15,000	\$ 165,000
U.S. EPA Indirect Costs (50.65%)	<u>\$2,331,850</u>	<u>\$236,105</u>	<u>\$2,567,955</u>
Total Intramural Cost	\$2,481,850	\$251,105	\$2,732,955

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 \$7,637,955. Of this, an estimated \$4,905,000 comes from the Regional removal allowance.

X. RECOMMENDATION

This decision document would commit additional funding to continue stabilization activities at the Humboldt Smelter area determined necessary in the 2011 Action Memorandum for the Iron King Mine-Humboldt Smelter Site. The Administrative Record for the Site includes information supporting this decision. If you approve of this action, please indicate your decision by signing below. This document requests authorization for an additional \$480,000 in extramural funding. The total removal project ceiling, if approved, will be \$4,905,000 which comes from the Regional removal allowance.

Approve: _____


 Enrique Manzanilla, Director
 Superfund & Emergency Management Division

9/16/19
 Date

Disapprove: _____

Enrique Manzanilla, Director
 Superfund & Emergency Management Division

Date

² 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.

Attachment A:
Request for a 12-month Exemption Action Memorandum for the Iron King-Humboldt
Smelter Superfund Site, Dewey-Humboldt, Yavapai County, Arizona

Attachment B:
Project Ceiling Increase Approval, Funding, and Exemption from the \$2 Million Statutory
Limit to Continue the Removal Action at the Iron King-Humboldt Smelter Superfund Site,
Dewey-Humboldt, Arizona

Attachment C:
Enforcement Confidential Addendum

cc: Stephanie Wenning, U.S. EPA, OEM, HQ

bcc: Site File
M. Benson, ORC-3
P. Guria, SFD-9-2
L. Keller, SFD-9-1
K. Lawrence, SFD-9-3
B. Lee, SFD-9-3
M. Matthews, SFD-9-3
K. Castro, SFD-2
Jeff Dhont, SFD-6-2