



REGION 8

DENVER, CO 80202

ACTION MEMORANDUM

SUBJECT: Action Memorandum for a Removal Action at the Mayflower Mill Mercury Site pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104.

FROM: Craig Myers, OSC
Response Section

THRU: Kerry Guy, Supervisor
Response Section

Deirdre Rothery, Manager
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TO: Aaron Urdiales, Director
Superfund and Emergency Management Division

I. Purpose

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Mayflower Mill Mercury Site located in Silverton, San Juan County, Colorado pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104. This emergency response involved the discovery of a historical release of mercury and discovery of an orphan container of nitric acid at the Mayflower Gold Mill Site (site) which is a national historic landmark that offers self-guided tours to the public. Conditions existing at the Site present a threat to public health or welfare or the environment and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

II. Site Information

A. Site Description

Site Name: Mayflower Mill Mercury
Site Spill ID (SSID): B8S3
NRC Case Number: 1467473

CERCLIS Number: CON000826545
Site Location: 135 Co Rd 2, Silverton, CO 81433
Lat/Long: 37.828959, -107.62775
Potentially Responsible Party (PRP):
NPL Status: Non-NPL
Removal Start Date: 07/13/2026

B. Site Background

1. Site Evaluation

On July 10, EPA received a report from the National Response Center (NRC) of a release of mercury at the Mayflower Gold Mill. Mercury is a metal that is liquid but begins to emit harmful vapors at room temperature. mercury is easily inhaled and extremely toxic. The mercury release was identified on the floor in the basement portion within the mill and elevated mercury vapors were identified in some portions of the mill where tourists often walk past posing a threat to the public and members of the historical society who work at the mill.

Additionally, a very old, unknown container of clear liquid was discovered along the self-guided tour route. The Site team determined that this liquid was very strong nitric acid. Nitric acid is an oxidizing acid that is incompatible with wood and other combustible material, so any spillage or breakage of the glass container would likely have resulted in a fire.

2. Physical location and Site characteristics

Mayflower Mill Mercury is located 135 County Road 2, Silverton in San Juan County, CO. The Site is located approximately 2 miles northeast from Silverton city center and is a large, historical gold mill that is open to the public for self-guided tours. The property is owned and managed by the San Juan County Historical Society.

3. Release or threatened release into the environment of a hazardous substance, pollutant or contaminant.

Mercury is the only metal that volatilizes at room temperature. In its pure form (often called metallic), mercury is a shiny, silver-white, odorless liquid. At room temperature, mercury vaporizes into a toxic, colorless, odorless gas.¹ For liquid mercury, the most significant route of absorption is through

¹ United States of America, Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine Prevention, Response and Medical Support Branch Emergency Response Team. (2012, March 22). Action

inhalation. Because of the chemical nature of mercury vapor, deposition and retention in the lungs are quite high (on the order of 80 percent in humans).²

When spilled or tracked into a small or poorly ventilated room, mercury can pose significant health threats, such as kidney damage and/or respiratory distress. Very small amounts of mercury, released into an enclosed space (such as a home or classroom), can raise air concentrations to harmful levels. Metallic mercury is extremely difficult to remove from shoes, clothes, furniture, carpet, and other porous items. It is easily tracked and transferred. If these items are not properly disposed of or cleaned, the mercury can linger for months or years and continue to pose a health threat.³

Nitric acid is a highly corrosive, toxic mineral acid and powerful oxidizing agent. Best known for producing fertilizers and explosives, it is a strong acid used extensively in metal refining, etching, and organic synthesis. Nitric acid is also a dangerous fire risk in contact with organic materials and causes severe, immediate tissue destruction and chemical burns. Inhalation of its vapors can cause delayed pulmonary edema (fluid in the lungs) and severe respiratory irritation.

III. Threats to Public Health Welfare or the Environment

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants.

On July 10th, 2026, Colorado Department of Public Health and Environment along with San Juan County requested EPA assistance. During the initial assessment on July 14, 2026, the EPA Response Team confirmed the presence of mercury in the facility's amalgamation processing room where the spill was discovered; mercury vapor concentrations in the ambient breathing zone along the public walking tour path was observed at 5400ng/m³, with higher concentrations near the floor, a retort processing unit measured at over 50,000ng/m³, and in the basement area under the walking tours raised platform where the mercury beads were observed measured 8650ng/m³. No other mercury contamination was observed in the Mayflower Mill facility.

Levels for Elemental Mercury Spills.

² Arch Environ Health, 1976 Nov-Dec; 31(6):302-9. Clearance of mercury (HG-197, HG-203) vapor inhaled by human subjects.

³ <https://www.epa.gov/mercury/health-effects-exposures-mercury>

Nitric acid was discovered along the public tour path in the open-air tram house which is constructed out of wood. In the location that the nitric acid was discovered, any spillage or breakage of the glass container would likely have resulted in a fire..

B. Check applicable factors (from 40 CFR 300.415) which were considered in determining the appropriateness of a removal action: EPA has considered all the factors described in 40 CFR 300.415(b)(2) of the NCP and determined that the following factors apply at the Site.

- ☒ Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].
- ☐ Actual or potential contamination of drinking water supplies or sensitive ecosystems [300.415(b)(2)(ii)].
- ☐ Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].
- ☐ High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate [300.415(b)(2)(iv)].
- ☐ Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415(b)(2)(v)].
- ☒ Threat of fire or explosion [300.415(b)(2)(vi)].
- ☒ The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)].
- ☐ Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

IV. Selected Removal Action and Estimated Costs

A. Situation and Removal Activities to Date

1. Current Situation.

EPA and personnel from START and ERRS demobilized from the Site on July 17, 2026. Laboratory analytical results for Toxicity Characteristic Leaching Procedure (TCLP) testing for waste removed from the facility have been sent out for processing and waste disposal arrangements are in process. Waste is currently staged onsite at the Gladstone Interim Water Treatment Plant.

2. Removal activities to date:

a) Federal Government/Private Party

Between July 13 and July 16, 2026, the Mayflower Mill and ancillary buildings were evaluated for mercury contamination. The source of the mercury was located in the facility's amalgamation room which used mercury as part of its

gold extraction process. Mercury beads were discovered beneath an elevated platform which was part of the self-guided tour as well as in several metallic objects near the processing equipment, in an area not accessible to the public. The facility's public walking tour was screened for mercury with a Lumex mercury vapor analyzer and found to be free from mercury contamination. The EPA's Environmental Rapid Response Service (ERRS) team cleaned the metallic objects and eliminated residual contamination with Mercury binding agent. The EPA team screened the basement area below the path of the public tour and used a mercury vacuum to collect the visible beads of mercury. Once the visible beads of mercury were collected the basement was reassessed with a Lumex mercury vapor analyzer to identify any outstanding hotspots. Several support beam footers were found to have elevated levels of mercury present. EPA ERRS contractors were tasked with applying silicone sealant to the footers and applied a mercury binding agent to the floor of the amalgamation room. Waste transportation and disposal activities remain ongoing. The EPA team demobilized on July 17, 2026 from the spill location.

b) State/local

EPA was notified of the mercury release by the Colorado Department of Public Health and Environment on July 10th, 2026. The EPA response team began coordinating response efforts with the San Juan County emergency manager, San Juan County Public Health Department, and the local historical society.

3. Enforcement

Where the responsible parties are known, an effort initially was made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

B. Planned Removal Actions

1. Planned action description

EPA response team is currently processing waste from the Mayflower Mill for offsite disposal.

2. Contribution to remedial performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the site. However, no further action is anticipated at this time.

3. ARARs

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

No ARARs were identified due to the urgency of situation and the scope of the removal action to be conducted. RCRA requirements concerning waste analysis, manifesting, packaging, and transporting, while not ARARs, do apply to off-Site shipments of hazardous wastes.

4. Project Schedule

Final disposal of the waste is expected to be completed in 2026.

C. Estimated Costs*

Contractor costs (ERRS/START staff, travel, equipment)	\$80,000
Other Extramural Costs (Strike Team, other Fed Agencies)	\$0.00
Contingency costs (20% of subtotal)	\$14,000
Total Removal Project Ceiling	\$94,000

*EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA. "

V. Expected Change in the Situation Should Action Be Delayed or Not Taken

A delay in action or no action at this Site would increase the actual or potential threats to the public health and/or the environment.

VI. Outstanding Policy Issues

None

VII. Approvals

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and is not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the Site.

Conditions at the site met the NCP section 300.415(b) criteria for a removal action and through this document, I am approving the proposed removal actions. The total project ceiling is \$94,000, this amount will be funded from the Regional removal allowance.

Craig Myers,
Federal On-Scene Coordinator

Date