UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
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November 15, 2022

Ref: SEM-EMR

ACTION MEMORANDUM

SUBJECT: Approval and Funding for an Emergency Removal Action at the Wolff Street Chemical Site, Denver County, Colorado pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104.

FROM: Todd DeGarmo
Federal On-Scene Coordinator

THRU: Kerry Guy, Supervisor
Emergency Response Section

THRU: Deirdre Rothery, Manager
Emergency Management Branch

TO: Betsy Smidinger, Director
Superfund and Emergency Management Division

Site ID# B8E7

I. PURPOSE

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Wolff Street Chemical Site (Site) located in Denver, Denver County, Colorado, pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104. This emergency removal action involves the collection, transportation, and disposal of highly unstable and reactive chemicals and radioactive material from the Site.

Conditions existing at the Site presented a threat to public health and the environment and met the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP). This removal action involved no nationally-significant or precedent-setting issues. This emergency removal action will not establish any precedent for how future response actions will be taken and will not commit the United States Environmental Protection Agency (EPA) to a course of action that could have a significant impact on future responses or resources.

II. SITE CONDITIONS AND BACKGROUND

Site Name:	Wolff Street Chemical Site
Superfund Site ID (SSID):	B8E7
NRC Case Number:	1347925
CERCLIS Number:	CON000821203
Site Location:	Denver, Denver County, Colorado
Latitude/Longitude:	39.77031/ -105.04896
Potentially Responsible Party (PRP):	
NPL Status:	Non NPL
Removal Start Date:	09/21/2022

A. Site Description

1. Removal Site Evaluation

On September 21, 2022, the Denver Department of Public Health and Environment (DDPHE) contacted EPA about a residential property with various unknown chemical containers, small radiological sources, and other unknown chemical hazards. DDPHE requested EPA assistance with assessment and management of the hazardous substances in the residential home. DDPHE vacated the inhabitants and animals at the property. The Denver Police Department Bomb Squad cleared the property for threats of explosive hazards.

On the afternoon of September 21, EPA mobilized to the Site with Superfund Technical Assessment and Response Team (START). EPA performed radiation, air, and mercury monitoring. Elevated radiation levels traced back to a closet near the back door that contained numerous radiological sources. Flammables, oxidizers, and reactive chemicals were dangerously scattered throughout the house, including elemental mercury (approx. 1/2 pound). The hazardous substances were mixed with everyday household items as well as next to food items.

As a precaution, EPA conducted similar monitoring at the duplex next door. The readings were not elevated.

2. Physical Location

The Site is located at 3849 Wolff Street, Denver County, Denver just North/West of downtown Denver.

3. Site Characteristics

The hazardous substances were in a residential duplex home. A single wall separated this residence from the neighbors. The house is in a residential neighborhood surrounded by single family homes. The hazardous substances were scattered throughout the residence stored together with food, piles of boxes and among other household items.

On September 21, 2022, DDPHE condemned the house and deemed it un-inhabitable for being an imminent hazard to public or environmental health and unfit and unsafe for human habitation or presence. The property owner that purchased the radiological

sources and chemicals was moved to assisted living a few months prior to DDPHE's condemnation. DDPHE evicted the remaining occupant and evacuated the pets.

The site is not located in a potential (National and State 80 percentile) Environmental Justice (EJ) area.

4. Release or Threatened Release into the Environment of a Hazardous Substance, Pollutant, or Contaminant

The hazardous substances were considered abandoned which constitutes a release as defined by Section 101 (22) of CERCLA.

A total of 176 containers were found within the residence. Hazardous substances included elemental metals, oxidizers, peroxides, flammables liquids, inorganic and organic acids, bases, unlabeled powders, nonflammable and poisonous gases, poison, and combustible materials. Several of these chemicals are specifically listed hazardous substances in 40 CFR § 302.4 as defined by Section 101(14) of CERCLA (e.g., mercury, phosphorus, hydrochloric acid, potassium chloride, diethyl ether, ammonium perchlorate and dimethyl sulfoxide).

Acids and corrosives at the Site pose a severe dermal hazard. Hydrochloric acid reacts violently with bases and oxidizers forming toxic chlorine gas. Hydrochloric acid emits corrosive fumes on contact with air.

Hazardous substances which exhibit the characteristics of ignitability and reactivity pose a threat of fire and explosion which could cause physical hazards as well as generating hazardous fumes which could impact nearby populations.

Mercury is listed as a hazardous substance in 40 CFR §302.4 as defined by Section 101(14) of CERCLA. Mercury is the only metal that is liquid at room temperature. In its pure form (often called metallic or elemental), mercury is a shiny, silver-white, odorless liquid. At room temperature, mercury vaporizes into a toxic, colorless, odorless gas. In its vapor form, mercury is easily inhaled and extremely toxic. For elemental mercury, the most important route of absorption is through inhalation. Because of the chemical nature of elemental mercury vapor, deposition and retention in the lungs are quite high (on the order of 80 percent in humans). Exposure to elemental mercury can adversely affect the nervous system (i.e. mercury is a neurotoxin).

About 59 radionuclides identified included Indium-111 (In-111), Thorium-232 (Th-232), Radium 226 (Ra-226) and Uranium 236 (U-236), Uranium and Thorium ore, Yellow Cake, and Tritium. Several of these radionuclides are specifically listed as hazardous substances in 40 CFR § 302.4 and as defined by Section 101(14) of CERCLA (e.g., In-111, Th-232, Ra-226). Exposure to radiation can increase the risk of cancer.

5. NPL Status

This Site is neither on nor currently being considered for inclusion on the NPL.

6. Maps, Pictures, Other Geographic Representations

A map of the Site is available in Attachment 1. Relevant Site photos are available in Attachment 2 of this document.

B. Other Actions to Date

1. Previous Actions

None

2. Current Actions

There are no current removal actions on the Site.

C. State and Local Authorities' Role

1. State and Local Actions to date

DDPHE contacted EPA about a residential property with various unknown chemical containers, small radiological sources, and other unknown chemical hazards. DDPHE requested EPA assistance with assessment and management of the hazardous substances in the home. DDPHE vacated the inhabitants and animals at the property. The Denver Police Department Bomb Squad cleared the property for threats of explosive hazards prior to EPA arrival and returned to clear more items identified by the EPA upon EPA's request. The Bomb Squad removed 3 items (diethyl ether, ammonium perchlorate and dimethyl sulfoxide) and detonated them on their range.

2. Potential for Continued State/Local Response

Upon completion of the EPA response, DDPHE will finish removing any other solid wastes outside the scope of EPA such as trash, spoiled food, pet waste, etc., to allow return of occupancy.

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

Conditions at the Site presented a threat to public health and the environment and met the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the NCP.

The 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.

"(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants or contaminants;"

The hazardous substances included radioactive nuclides, metals, poisons, corrosives, reactive and toxic substances that could cause danger to the residents, pets and the public. The hazardous substances were stored improperly among household items and food.

"(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;"

While the containers were intact, they were inadequately stored, which could cause un-wanted reaction with other chemicals and/or household items. Stored in the refrigerator were crystalized and temperature sensitive items. Loss of electricity or a vibration could cause these hazardous substances to react and be released into the environment.

"(vi) Threat of fire or explosion:"

The air- and water-reactive nature of many of the hazardous substances in the house could create a situation that would catastrophically release hazardous substances into the environment and expose nearby populations. Flammables, oxidizers, acids and reactive substances were improperly stored together causing a fire threat. There were chemicals that had crystalized that were potentially explosive and/or reactive. For this reason, the Denver Bomb Squad was deployed to remove and dispose of these chemicals.

"(vii) The availability of other appropriate federal or state mechanisms to respond to the release."

No other state, local or federal agency has the capacity to independently implement a timely and comprehensive response action to secure the safe transportation and proper disposal of the hazardous substances. Thus, DDPHE requested assistance from EPA's Emergency Response Program.

IV. SELECTED REMOVAL ACTIONS AND ESTIMATED COSTS

A. Planned Actions

1. Planned Actions

Between 21-28 September 2022, EPA screened a total of 59 radioactive sources, identifying the type of radionuclides and divided them into different isotopes for disposal. The radioactive sources were transported and disposed at US Ecology in Idaho.

EPA performed hazard classification (i.e, hazclass) on 176 "unknown" chemical containers. The containers were segregated and packaged in DOT approved overpacked containers. Completed inventory and photolog have been loaded to response website (https://response.epa.gov/WolffStreetChemicals). AET Environmental has been awarded the transportation and disposal (T&D) contract. Profiles for the waste streams were prepared and provided to AET. EPA is waiting for AET to schedule transportation and disposal.

The overpacked containers are stored inside the residence pending pickup, transportation and disposal by AET. EPA placed locks on all the doors for security.

2. Contribution to Remedial Performance

No further federal action is anticipated at this time.

3. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA is not required for an emergency response action.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

This Action Memorandum addresses the emergency response actions at the Site. Emergency response actions conducted under CERCLA are required, to the extent practicable considering the exigencies of the situation, to attain ARARs. In determining whether compliance with an ARAR is practicable, the EPA considered appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted. To date, no ARARs have been identified for this Site.

No ARARs have been identified for this emergency response. RCRA requirements concerning waste analysis, manifesting, packaging, and transporting, while not ARARs, apply to off Site shipments of hazardous wastes.

5. Project Schedule

The removal was initiated on 21 September 2022. The hazardous substances were analyzed, segregated and packaged for transportation and disposal. The radioactive material was picked up by a broker and transported to US Ecology in Idaho for disposal on 28 September 2022. EPA and contractors demobilized on 28 September 2022. EPA is in the process of scheduling transportation and disposal of remaining hazardous chemicals.

B. Estimated Costs*

Emergency Response and Rapid Services Team	$ 80,000
Superfund Technical Assistance and Response Team	$ 35,000
SUBTOTAL	$ 115,000
Contingency	$ 20,000
Total Removal Project Ceiling	**$ 135,000**

*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. ENFORCEMENT

An investigation to evaluate potential enforcement options will be undertaken. A separate Enforcement Addendum will be prepared if appropriate, providing a confidential summary of potential enforcement activities.

VIII. APPROVALS

This decision document represents the selected removal action for the Wolff Street Chemical Site, Denver, Denver County, Colorado, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for the Site.

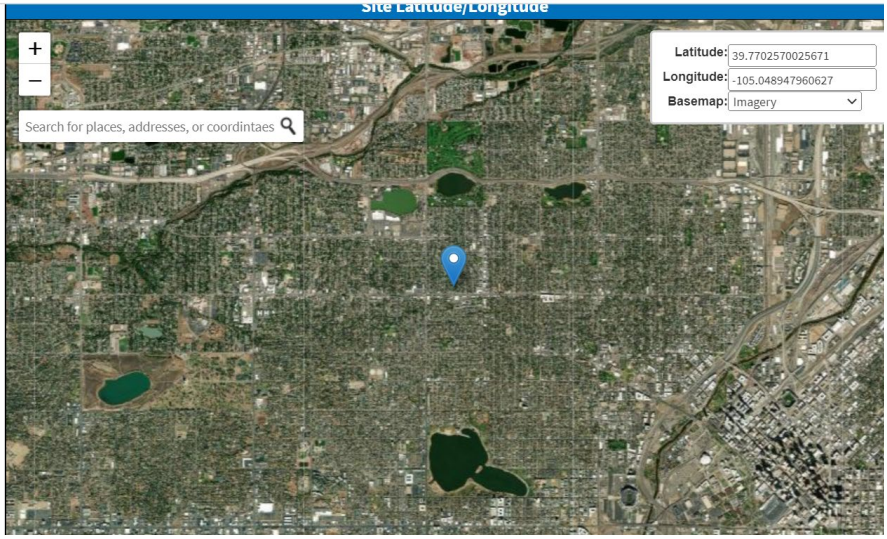
Conditions at the Site met the NCP section 300.415(b) criteria for a removal action and through this document, I am approving the proposed removal actions. The total project ceiling is $135,000; this amount will be funded from the regional removal allowance.

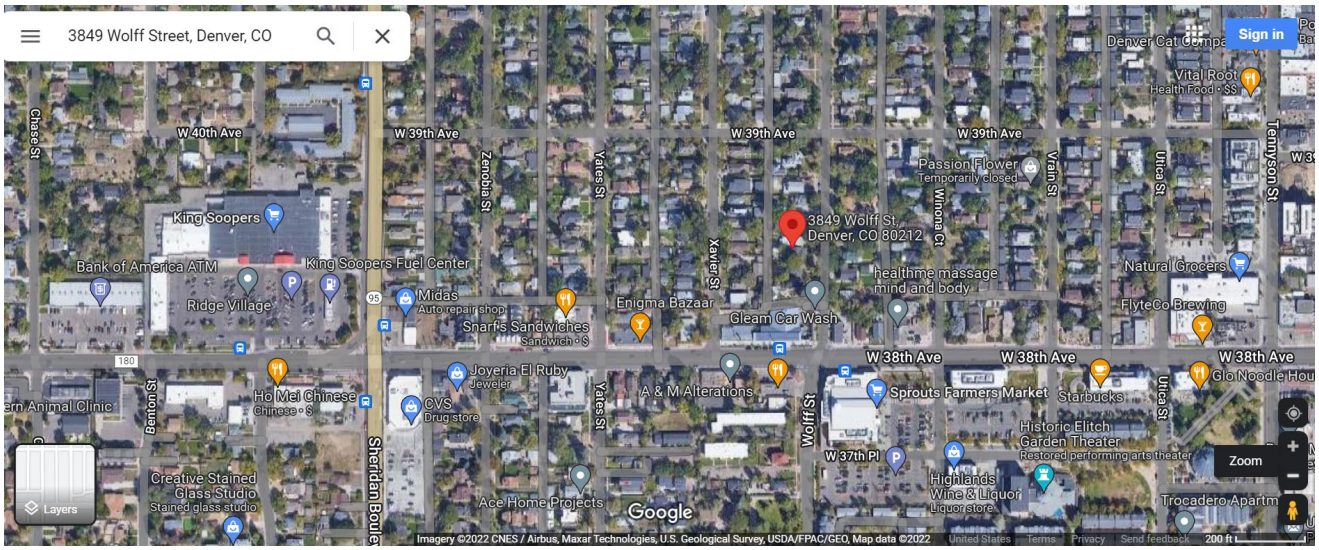
TODD DEGARMO Digitally signed by TODD DEGARMO
Date: 2022.11.15 11:39:44 -07'00'

Todd DeGarmo, Federal On-Scene Coordinator Date
Response Section

Attachments: Attachment 1: Site Map
Attachment 2: Site Photos

Attachment 1: Site Map





Map 1. The Site is located in Denver, Denver County, Colorado.

Attachment 2: Site Photos

Image 1. Front of site with notice that Site has been condemned and deemed un-inhabitable by DDPHE for being an imminent hazard to public or environmental health and unfit and unsafe for human habitation or presence.

Image 2. Radioactive nuclides found in closet, in second door on the right, near the kitchen. Hazardous substances found in the room on the left and in the safe on the left.

Image 3. Radioactive nuclides found in closet near rear entry way.

Image 4. Hazardous substances found in kitchen stored near food. Some of the chemicals were temperature sensitive and some had crystallized.

Image 5. Hazardous substances were found in the kitchen stored with food.

Image 6. Chemicals and radiological sources found in the bedroom.

Image 7. Hazardous substances were found in the living room.