



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

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Ref: 8EPR-ER

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ACTION MEMORANDUM

SUBJECT: Approval and Funding for a Time-Critical Removal Action at the Reilly Coal Tar and Chemical Site in Utah County, Utah

FROM: Martin McComb
Federal On-Scene Coordinator

THRU: Laura Williams, Unit Leader
Emergency Response

David A. Ostrander, Director
Emergency Response & Preparedness Program

TO: Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

Site ID# A8Q9

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the time-critical removal action described herein for the Reilly Tar and Chemical Site (Site) in Utah County, Utah. This time-critical removal action involves the installation of interim control measures to limit the migration of contamination off site. 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 Oil and Hazardous Substances Pollution Contingency Plan, also called the National Contingency Plan (NCP).

This removal action involves no nationally-significant or precedent-setting issues. This time-critical removal action will not establish any precedent for how future response actions will be taken and will not commit the U.S. 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:	Reilly Tar and Chemical
Superfund Site ID (SSID):	A8Q9
NRC Case Number:	N/A
CERCLIS Number:	UTD009087644
Site Location:	2555 South Industrial Parkway, Provo, Utah County, Utah
Lat/Long:	40.197816/-111.628421
NPL Status:	Non NPL
Removal Start Date:	FY'18/1

A. Site Description

1. Removal Site Evaluation

The Reilly Tar and Chemical Site (Site) is a former coal tar processing facility located on a 31.84-acre lot at 2555 South Industrial Parkway in Provo, Utah County, Utah (See Attachment 1 for Site location). The facility was in operation from 1924 through 2002 and produced a number of oil and tar products, including creosote oil, electrode binder pitch, and various light-end and heavy-end oils. Wastes generated at the Site included polycyclic aromatic hydrocarbons (PAHs), phenols, benzene, cyanides and sulfides. All buildings and structures have been removed from the Site with the exception of some concrete foundations. The Site is bounded to the north by Ironton Canal which drains into Spring Creek and Utah Lake's Provo Bay west of the Site. Other industrial properties are located to the east and west, immediately adjacent to the Site. There is a seasonal wetland in the southern portion of the Site. Groundwater at the Site is shallow (three feet below ground surface on average) and tends to flow in a westward direction. The former owner/operator of the Site filed for bankruptcy in 2016.

Until the 1970s, drainage at the Site had been originally designed to dewater the facility into the northwest corner of the property and discharge through an outfall directly into Ironton Canal. This drainage network was plugged at its outfall and a secondary containment wall was constructed at the Site along the canal.

In June 2017, the EPA On-Scene Coordinator (OSC) mobilized a Superfund Technical Assessment and Response Team (START) and Emergency and Rapid Response Services (ERRS) and conducted a removal site inspection at the Site in conjunction with the Utah Department of Environmental Quality (UDEQ). Subsurface contamination consisting of semi-volatile organic compounds (specifically, PAHs) and volatile organic compounds (primarily benzene) was observed throughout the Site, with some areas having contaminated deposits in excess of 13 feet. The contamination in the eastern portion of the Site was dominated by solidified coal tar byproducts; while in the western portion of the

Site, the contamination was more aqueous and mobile, readily entering exploratory trenches dug by ERRS. The footings of the containment wall in the northern portion of the Site along Ironton Canal are shallow, and there is a large source of contaminated aqueous and mobile waste beneath the wall at the location of the historic outfall. Waste from the Site has discharged into the canal and could continue to enter the canal and flow into Utah Lake during storm water flooding events. In addition, during the inspection, the OSC observed numerous asbestos-containing tiles scattered around the Site.

2. Physical Location

The Site is located at 2555 South Industrial Parkway in an industrial section of Provo, Utah County, UT. As of the 2010 Census, Provo has a population of 115,264. The area surrounding the Site includes industrial property and environmentally sensitive habitat, including wetlands. The closest residential area is located approximately one mile east and northeast of the Site (estimated population approximately 1,500). The Site is bounded to the north by Ironton Canal. Ironton Canal drains into Spring Creek and Provo Bay in Utah Lake approximately 1.5 miles from the Site. Utah Lake is a popular fishing and recreational lake for people from the greater Provo metropolitan community.

3. Site Characteristics

As stated above, the subsurface contamination at the Site consists primarily of semi-volatile organic compounds (specifically, PAHs) and volatile organic compounds (chiefly benzene). The contamination in the eastern portion of the Site was dominated by solidified coal tar byproducts; while in the western portion of the Site, the contamination was more aqueous and mobile. Drainage at the Site had been originally designed to dewater the facility into the northwest corner of the property and discharge through an outfall directly into Ironton Canal. This drainage network was plugged at its outfall and a secondary containment wall was constructed at the Site along the canal. The footings of this containment wall are shallow, and there is a large source of contaminated aqueous and mobile waste beneath this wall at the location of the historic outfall. Waste from the Site has discharged into Ironton Canal and could continue to enter the canal. The Site also contains numerous asbestos-containing tiles scattered throughout the property.

The average annual rainfall in Provo is approximately 20 inches while average snowfall is 58 inches. This area of Utah experiences substantial snowmelt runoff during the annual spring thaw. This runoff as well as rain or snow events and intense summer thunderstorms have the potential of increasing the rate of migration of the contaminated waste from the Site into the canal and, ultimately, Utah Lake.

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

Both semi-volatile organic (lower and heavy molecular weight PAHs) and volatile organic compounds (benzene) have been detected at elevated levels at the Site. Polycyclic aromatic hydrocarbons are semi-volatile organic compounds that consist of hydrocarbons arranged in the form of two or more benzene rings in linear, angular, or cluster arrangements. Lower molecular weight PAHs (molecular weight less than 202.26) contain two to three benzene rings that often exhibit acute toxicity but are generally non-carcinogenic, whereas high molecular weight PAHs (molecular weight greater than 202.26) contain four to seven benzene rings and are usually considered carcinogenic. Light molecular weight PAHs such as fluoranthene and heavy molecular weight PAHs such as benzo(a)pyrene and chrysene are all listed hazardous substances in 40 CFR § 302.4. Benzene is a volatile organic compound that is a listed hazardous substance in 40 CFR § 302.4 and a suspected carcinogen. Exposure to benzene has been linked to aplastic anemia, leukemia, and multiple myeloma.

Other contaminants at the Site include asbestos-containing tiles. Asbestos is a listed hazardous substance in 40 CFR § 302.4 and with exposure to the elements, will become friable, thus presenting an imminent threat of release to the environment.

5. NPL Status

The Site is neither on nor considered for inclusion on the NPL.

6. Maps, Pictures, Other Geographic Representations

A map of the Site is available in Attachment 1. Relevant photos are available in Attachment 2 of this document, in the Site file and in the administrative record for the removal action.

B. Other Actions to Date

1. Previous Actions

In 1996, the owner/operator of the Site entered into a Corrective Action Agreement (CAA) with the State of Utah for the investigation and remediation of the contamination at the Site. The investigation revealed highly toxic and persistent carcinogen semi-volatile organic compounds (specifically, PAHs) and volatile organic compounds (primarily benzene) in the surface and subsurface soil, sediment, groundwater, and surface water at the Site. In 2016, the owner/operator entered into bankruptcy, and no remedial actions have been initiated. Title to the property has been transferred to an environmental response trust as part of a bankruptcy settlement.

2. Current Actions

There are no current activities at the Site.

C. State and Local Authorities' Role

1. State and Local Actions to date

The UDEQ, in conjunction with the environmental response trust trustee, conducted initial investigations at the Site. The UDEQ has also been involved with the EPA in planning this time critical removal action for the Site.

2. Potential for Continued State/Local Response

State and local entities do not have the resources to conduct this removal action; however, UDEQ is involved in this removal action in a consultation role.

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

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

EPA, in consultation with UDEQ, 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 of nearby human populations, animals, or the food chain:”

Fish and the macro-invertebrate community in Ironton Creek, Spring Creek, and Utah Lake Creek have the potential to be exposed and impacted by contaminants discharging from the Site. Fishermen and recreationists at Utah Lake may be exposed to contaminants through direct contact with the water and from the fish via the food chain.

“(iv) Existence of highly contaminated surface soils that could migrate:”

Previous sampling events at the Site have identified elevated semi-volatile organic and volatile organic compounds in surface and subsurface soils. Waste from the Site has discharged into Ironton Canal and could continue to enter the canal because this part of Utah experiences substantial snowmelt run-off during the annual spring thaw. This run-off as well as rain or snow events and intense summer thunderstorms have the potential of increasing the rate of migration of the contamination from the Site into the canal and, ultimately, Utah Lake.

“(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released:”

The average annual rainfall in Provo is approximately 20 inches while average snowfall is 58 inches. This area of Utah experiences substantial snowmelt run-off during the annual spring thaw. This run-off as well as rain or snow events and intense summer thunderstorms have the potential of increasing the rate of migration of the contamination from the Site directly into Ironton Canal, especially in the northern portion of the property from the subsurface waste beneath the secondary containment wall.

“(vii) The availability of other appropriate federal or state mechanisms to respond to the release:”

Local and state governments do not have the capability to conduct the action in a timely manner.

IV. SELECTED REMOVAL ACTION AND ESTIMATED COSTS

A. Planned Actions

1. Planned Action Description

The planned actions in the northern portion of the Site, in Map Area 1 as depicted in Attachment 1, are to excavate approximately 2,000 cubic yards of contaminated material along the Ironton Canal where the historic outfall was located. A flood-resistant liner will be installed between the Site and the Ironton Canal, the area will be backfilled with clean soil harvested on-site, and the banks of the canal will be armored. Vegetation will be removed and the area will be graded to ensure that surface water run-off will drain to the south away from the canal. Once completed, the disturbed area will be reseeded and erosion control features including earthen berms will be installed.

In the eastern portion of the Site, in Map Area 2 as depicted in Attachment 1, the planned actions consist of grading an area along the eastern perimeter and establishing appropriate run-off control berms. Soil excavated from the northern portion of the Site will be transported to this area, spread evenly, supplemented with amendments and periodically tilled.

In addition to these actions, all asbestos containing tiles found at the Site will be collected and transported off-site for appropriate disposal.

2. Contribution to Remedial Performance

This removal action is intended to be temporary in nature to provide run-off control and erosion protection at the Site while the State of Utah develops a comprehensive plan to fully remediate the Site. This effort will, to the extent practical, contribute to any future remedial effort at the overall Site.

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

An EE/CA is not required for a time-critical removal action.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

This Action Memorandum addresses the proposed time-critical removal action at the Site. Removal 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 lead agency may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted. A table containing potential Site-specific ARARs is provided as Attachment 3 to this Action Memorandum.

5. Project Schedule

This removal action is planned for late fall 2017.

B. Estimated Costs*

	Estimated Costs
ERRS contractor	\$ 125,000
SUBTOTAL	\$ 125,000
Contingency costs (20% of subtotal)	\$ 25,000
Total Removal Project Ceiling	\$ 150,000

*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 or the environment.

VI. OUTSTANDING POLICY ISSUES

None.

VII. ENFORCEMENT

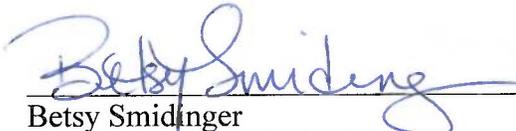
A separate Enforcement Addendum has been prepared providing a confidential summary of current and potential future enforcement activities.

VIII. APPROVALS

This decision document represents the selected removal action for the Reilly Tar and Chemical Site in Utah County, Utah, 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 meet the NCP section 300.415(b)(2) criteria for a removal action, I recommend your approval of the proposed removal action. The total project ceiling will be \$150,000; this amount will be funded from the Vertellus Specialties Environmental Response Trust Fund until exhausted (approximately \$130,000) with the remainder funded from the Regional removal allowance.

APPROVE



Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems, Protection, and Remediation

11/3/17

Date

DISAPPROVE

Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems, Protection, and Remediation

Date

Attachments:

- Attachment 1: Site Map
- Attachment 2: Site Photographs
- Attachment 3: Applicable or Relevant and Appropriate Requirements (ARARs)

Attachment 1 (Site Map)



1: Excavate ~2000 cubic yards of contaminated material from along the Ironton Canal at the northwest corner of the Site where the historic outfall was located (Map Area 1). Install a flood-resistant liner between the Site and the Ironton Canal, backfill the area with soil harvested on-site, and armor the banks of the canal.

2: Grade an area along the eastern perimeter of the Site (Map Area 2) and establish appropriate runoff control berms. Transport the soil excavated from along the Ironton Canal to this location, spread the soil evenly, add amendments and till the soil in May, July, and September 2018.

3: Collect and dispose of asbestos containing tiles at the Site, primarily from the industrial core of the Site (Map Area 3). Remove vegetation and grade the area to insure it drains to the south and away from the canal. Reseed and install erosion control features across the disturbed area.

4: Area to be investigated by State and considered for further remediation.

Attachment 2 (Site Photographs)

Exploratory Trench: Depth 4 ft; Black soils from 0-4 ft; Sweet petroleum smell; Groundwater present at 3 ft; Tar present from 2-4 ft; Oil and sheen present in groundwater; Oozing tar present



Exploratory Trench: Depth 13 ft, light brown soils from 0-0.5 ft, black 0.5-13 ft; Heavy petroleum smell; No groundwater; Bricks mixed in with soils; Tar present from 0.5-13 ft.



Attachment 3: Applicable or Relevant and Appropriate Requirements (ARARs)

Requirement	Citation	Description	Determination	Comment
Utah Water Quality - Storm Water Discharges	UAC* R317-8-3.9	Requires UPDES permit for storm water discharges associated with a small construction activity and ensures storm water discharges from the site do not pollute waters of the state.	Applicable	Because construction activities, including grading or excavating, will be performed on-site, must implement best management practices to address storm water management at the site.
Utah Water Quality - Storm Water Rules	UAC R317-8-7	Requires permits for the discharge of pollutants from any point source into Waters of the State. Substantive requirements, including implementing Best Management Practices to prevent discharge of pollutants such as sediment to storm water, would be required for response activities such as land clearing or soil excavation.	Relevant and Appropriate	Because the response action includes soil excavation and off-site disposal, it will use best management practices to prevent discharge of pollutants to any nearby bodies of water to the extent practical.
Utah Air Quality Rules	UAC R307-101 & 102	Establishes emissions standards for excavation and disposal operations to ensure compliance with National Ambient Air Quality Standards (NAAQS).	Applicable	Response action of contaminated soils will be designed for dust control to control or reduce air pollution to the extent practical.
Utah Air Quality Rules	UAC R307-205	Establishes the requirement that fugitive dust must be controlled during ground disturbing activities such as excavation, disposal and soil covering.	Applicable	Response action should be designed to control fugitive dust to the extent practical.
CWA Section 404	33 USC § 1344, 40 CFR Parts 230 and 231, 33 CFR Part 323	Prohibits discharge of dredged or fill material into wetlands or navigable waters of the U.S. without permission.	Applicable	Response activities might impact waters of the U.S. Section 404 applies to jurisdictional wetlands at the Site that are contaminated or likely contaminated.
Executive Order on Protection of Wetlands	Exec. Order No. 11990; 40 CFR § 6.302(a) and Statement of Procedures on Floodplain Management	Requires federal agencies to avoid, to the extent possible, the adverse impacts associated with the destruction or loss of wetlands. The Executive Order is TBC because it is not a promulgated regulation.	To-be-considered Relevant and Appropriate	Response activities might impact wetlands located on-site. The EPA is required to comply with the Executive Order and ensure activities related to remedial decision-making comply with the Executive Order.
Executive Order on Floodplain Management	Exec. Order No. 11988; 40 CFR § 6.302(b) and Statement of Procedures on Floodplain Management and Wetlands Protection	Limits activities in floodplains, defined as "the lowland and relatively flat areas adjoining inland and coastal waters ... including at a minimum, that area subject to a one percent or greater chance of flooding in any given year." Federal agencies must evaluate the potential effects of actions taken in a floodplain and avoid adverse impacts from remedial activities.	To-be-considered Applicable	To the extent removal activities occur within the 100-year floodplain, EPA must comply with the Executive Order.

*UAC = Utah Administrative Code