



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 17 2011

MEMORANDUM

SUBJECT: Approval and Funding for a combined \$2 Million Exemption and Ceiling Increase and Change in Scope request for a Removal Action at the Holcomb Creosote Site, Yadkinville, Yadkin County, North Carolina

FROM: Karen B. Buerki, On-Scene Coordinator *KB*

THRU: A. Shane Hitchcock, Chief
Emergency Response and Removal Branch

TO: Franklin E. Hill, Director
Superfund Division

Site ID # B4E6

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of a combined Emergency Exemption from the \$2 Million Limitation for Time-Critical Removal Actions and Ceiling Increase and Change in Scope for the selected removal action described herein for the Holcomb Creosote Site, located in Yadkinville, Yadkin County, North Carolina. The response was initiated using the On-Scene Coordinator's (OSC) \$250,000 delegation and warrant authority (Attachment A). There are no nationally significant or precedent-setting issues associated with the response.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS Number: NCD024900987
Category of Removal: Time-Critical

A. Site Description

1. Removal site evaluation

A Removal Site Evaluation was conducted on January 20, 2011, at the request of the North Carolina Department of Environment and Natural Resources (NCDENR). Holcomb Creosote Company has been working with their consultant, Northwest GeoScience, to characterize the site. In the Northwest GeoScience report of their July 2010 sampling event,

creosote contamination was discovered adjacent to and underneath the concrete pit and in the drip pad area. A NCDENR Notice of Violation dated November 23, 2009, describes a Resource Conservation and Recovery Act (RCRA) impoundment that was closed in 1988 and a landfarm that was used to treat the contents of the impoundment. NCDENR also performed sediment sampling in June 2009, which revealed sediment contamination.

Tanks containing creosote, creosote sludge, diesel fuel, and fuel oil, and an open concrete pit containing waste creosote and wastewater treatment sludge (F034/K001) remained on-site. There is no secondary containment for the tanks. There were numerous drums and heavily stained soil throughout the process area. Inside the boiler room, suspected asbestos insulation, around the boiler and capping the insulating jacket at the end of the pressure vessel, had cracked off and was accumulated on the dirt floor. Stained soil was observed throughout the boiler room. During the evaluation, visible sheen was observed being released from the sediment of a tributary to Deep Creek adjacent to the facility. NRC Report #965285 was made and an emergency response was initiated to mitigate the ongoing release of hazardous substances to the environment.

2. Physical location

Holcomb Creosote Company
5016 US Highway 601
Yadkinville, North Carolina 27055
Latitude: 36° 09' 29" Longitude: - 80° 40' 32"

Holcomb Creosote Company is located just north of Yadkinville. It is situated between the highway and a tributary of Deep Creek. Stormwater run-off flows to the southeast to the tributary. This tributary feeds into a wetland at the head of Dobbins Mill Pond at the southern boundary of the facility. There is a residential neighborhood within one half mile to the south, bordering Dobbins Mill Pond, and Grace Bible Church adjacent and to the north. The surrounding area is classified Low Income to the east and Non-EJ Area to the west on the map of potential Environmental Justice (EJ) areas generated by the Office of Environmental Accountability (Attachment B).

3. Site characteristics

Holcomb Creosote Company was a creosote wood treating company. It began operations in the 1951 and went out of business in February 2009. Tanks containing creosote, creosote sludge, diesel fuel, and oil, and an open concrete pit containing waste creosote and wastewater treatment sludge (F034/K001) remained on-site. There is no secondary containment for the tanks. The facility consists of a warehouse, office, and boiler room in one building, one pressure vessel, a 50'x80' metal building that covers the drip pad, one 64'x5' pressure vessel, a RCRA impoundment closed in 1988 and associated RCRA landfarm. The facility is not secured from public access.

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

Creosote is a hazardous substance as defined by section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and contains carcinogenic polynuclear aromatic hydrocarbons (PAHs), specifically, benzo(a)anthracene, chrysene, dibenzo(a,h)anthracene, and ideno(1,2,3-cd)pyrene, as identified in the September 2002 ATSDR Toxicological Profile for Coal Tar Creosote. Heavily stained soil is visible throughout the process area. Waste creosote and process sludge are RCRA U051/F034/K001 listed wastes, also hazardous substances as defined by section 101(14) of CERCLA. Waste creosote and process sludge were contained in an open concrete pit and in an unsecured 1000 gallon tank adjacent to it that was leaking. There are three horizontal tanks used to supply fuel oil to the boiler. One of the tanks contains oil and is leaking. There is a 10,000 gallon creosote tank associated with the "old" plant that is approximately half full. The insulation for this heated tank has burned off and the tank is severely pitted. There is no secondary containment in this area. There is a 10,000 gallon creosote tank associated with the "new" plant as well. It contains at least 8,000 gallons of creosote and has also had its insulation burn off and has no secondary containment. The "new" plant used diesel fuel stored in a 10,000 gallon tank. There is approximately 700 gallons of diesel stored in the tank. There is no secondary containment.

Friable asbestos insulation is crumbling off of the boiler onto the floor and an asbestos seal around the pressure vessel insulating jacket is cracking. START contractor Tetra Tech collected samples of the boiler material for asbestos analysis. The results dated January 27, 2011, show 80% Chrysotile. Asbestos is a hazardous substance as defined by section 101(14) of CERCLA.

An unsealed manometer, containing approximately two ounces of elemental mercury, was found in the boiler room. Mercury beads were visible on the outside of it and on the ground below it. A Lumex 915+ mercury vapor analyzer was used to confirm the presence of mercury in soil and some debris in the boiler room. Mercury is a hazardous substance as defined by section 101(14) of CERCLA.

5. NPL Status

The Holcomb Creosote Site is not listed on the NPL. The site has been referred to the Pre-Remedial program for NPL consideration.

6. Maps, pictures and other graphic representations

See Attachment C. Photographs are available at www.epaosc.org/HolcombCreosote.

B. Other Actions to Date

1. Previous actions

The RCRA impoundment was closed in 1988. The landfarm underwent treatment but has not been closed. A RCRA Corrective Action Plan was developed in July 1996 to address groundwater contamination under the facility. However, it was never executed. A significant conclusion of the plan is that shallow groundwater contamination releases to surface water during the winter and spring.

2. Current actions

The removal was initiated by EPA on January 21, 2011. ERRS repaired a water leak inside the building. Tree limbs left by the logging company during recent logging activities were removed from the banks of the tributary to provide access and sorbent boom was strung across the tributary to capture sheen. A lined containment area was constructed to store contaminated debris and stabilized sludge. Debris and scrap metal were segregated into clean and creosote contaminated piles. Scrap metal was loaded out by the PRP. Three 55-gallon drums of hydraulic oil were moved to a machine shop for use as a product.

Friable asbestos was wetted and HEPA vacuumed off of the floor of the boiler room and an encapsulant was applied to the boiler, the end of the pressure vessel, and the soil floor beneath them. Asbestos waste was placed into asbestos bags and sealed. START collected passive air samples from the three interior rooms of the building. The analytical report is dated February 9, 2011. Asbestos fibers were found in all of the samples.

Creosote debris and drip pad liner were staged in the containment area. Process piping was disconnected from the concrete pit and the leaking 1000 gallon tank of creosote sludge was emptied into the pit in preparation for stabilization. Drummed drip pad soil and creosote sludge stored in the building were also consolidated into the pit. Additional drip pad soil and cotton hull solids were used to stabilize the sludge for disposal. The F034/K001 sludge has been stockpiled and currently awaiting disposal at a RCRA-approved disposal site.

Two additional mercury-containing pressure gauges were discovered during removal of mercury contaminated soil. Approximately four pounds of mercury and four drums of mercury contaminated debris and soil were removed and drummed and currently awaiting disposal at a RCRA-approved disposal site.

ERRS consolidated all of the drums and pails. Creosote sludges were consolidated into the concrete pit. A cracked 55-gallon drum of used antifreeze was transferred to a secure drum, small containers were segregated according to hazard and drummed and currently awaiting disposal at a RCRA-approved disposal site.

Additional funds are necessary to complete disposal of the waste generated during the emergency response and to complete removal and disposal of friable asbestos, contaminated sediment, and surficial creosote contamination remaining on-site. The creek will be lined to

prevent migration of the sheen. Treatment to Land Disposal Restriction standards and disposal of the creosote waste was projected; however, the analytical results on the waste pile indicate that incineration is the only option.

C. State and Local Authorities' Roles

1. State and local actions to date

NCDENR directed the closure of the lagoon and the landfarm under RCRA. The lagoon closure certification is dated March 17, 1988. The landfarm was never certified closed. A Corrective Action Plan was developed in July 1996 for groundwater remediation, but, not implemented. A RCRA Notice of Violation was issued on November 23, 2009, after the facility discontinued operation. Holcomb Creosote has been unable to comply; therefore, NCDENR requested assistance from EPA in October 2010.

2. Potential for continued State/local response

NCDENR is unable to fund time-critical removal activities at the site.

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

Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [40CFR§300.415(b)(2)(i)].

Soil saturated with creosote is visible throughout the process area posing a direct contact threat. Analytical results from disposal profile sampling dated February 4, 2011, shows Removal Action Levels (RALs) are exceeded for benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene. The July 2010 soil sampling by Northwest GeoScience also shows exceedence of RALs for PAHs.

Friable 80% chrysotile insulation is releasing from the boiler and pressure vessel insulation.

Mercury-containing gauges and contaminated soil remain in the boiler room.

Actual or potential contamination of drinking water supplies or sensitive ecosystems [40CFR§300.415(b)(2)(ii)].

Stormwater runoff discharges to a wetland at the head of Dobbins Mill Pond. The wetlands are within 100 feet of the site. Groundwater discharges to the wetlands during winter and spring months. A NCDENR sampling event in June 2009 showed high levels of PAHs in the tributary to Deep Creek adjacent to the site. This tributary discharges to the wetlands at the head of Dobbins Mill Pond.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [40CFR§300.415(b)(2)(iii)].

Approximately 15,000 gallons of creosote remain abandoned in tanks with no secondary containment. The tanks are pitted from rusting and will eventually fail, releasing their contents to the tributary of Deep Creek. Creosote is a hazardous substance as defined by section 101(14) of CERCLA and contains carcinogenic polynuclear aromatic hydrocarbons (PAHs), specifically, benzo(a)anthracene, chrysene, dibenzo(a,h)anthracene, and ideno(1,2,3-cd)pyrene, as identified in the September 2002 ATSDR Toxicological Profile for Coal Tar Creosote.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate [40CFR§300.415(b)(2)(iv)].

Soil saturated with creosote is visible throughout the process area. It will continue to migrate down to groundwater.

Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [40CFR§300.415(b)(2)(v)].

Precipitation carries contaminants off-site.

The availability of other appropriate federal or state response mechanisms to respond to the release [40CFR§300.415(b)(2)(vii)].

There are no other federal or state mechanisms available to respond to the release.

IV. ENDANGERMENT DETERMINATION

Creosote is regulated under many statutes. It is a restricted use pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act. It is a hazardous substance under CERCLA with a reportable quantity of 1 pound. It is a RCRA hazardous waste as creosote U051, as spent formulations F034, and as bottom sediment sludge from treatment of process water K001. Creosote contains carcinogenic PAHs, as identified in the September 2002 ATSDR Toxicological Profile for Coal Tar Creosote. EPA has determined that coal tar creosote is a probable human carcinogen. The ATSDR ToxFAQ for creosote shows long term low level exposure results in skin cancer and scrotum cancer. Short term high level exposure effects are severe irritation of the skin, chemical burns of the surfaces of the eyes, convulsions and mental confusion, liver or kidney problems, unconsciousness, and even death.

Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

A. Emergency Exemption

1. There is an immediate risk to public health or welfare or the environment.

Stabilized sludge was stockpiled on visqueen with a visqueen cover for disposal pending analytical results. The cost for disposal exceeds the OSC's warrant authority; therefore, approval of a ceiling increase is necessary to complete the removal. The stockpile is releasing creosote during rain events according to an officer of Holcomb Creosote Company and requires immediate action.

2. Continued response actions are immediately required to prevent, limit, or mitigate an emergency.

Creosote is releasing from the stockpile during rain events and from heavily stained soil in the process area and asbestos insulation has become friable and is releasing into the air. Access to the site is not limited. These conditions constitute an emergency; therefore, continued response actions are immediately required to eliminate the direct contact risk further migration of the creosote.

3. Assistance will not otherwise be provided on a timely basis.

Neither Holcomb Creosote Company nor NCDENR have the resources necessary to perform the removal action.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

The removal action will address the immediate threats through excavation and disposal of highly contaminated surface soils and sediment, removal and disposal of creosote and treatment sludge, decommissioning the plant, abatement and disposal of the asbestos insulation on the boiler and treatment cylinder, removal and disposal of elemental mercury and mercury contaminated soil, removal and disposal of debris contaminated with creosote, and securing the landfarm and RCRA impoundment.

A. Proposed Actions

1. Proposed action description

- (a) Excavation and disposal of highly contaminated surface soils and sediment;

The footprint of the process area is approximately 8,500 square feet. Excavation of up to two feet of creosote contaminated surface soil and off-site disposal. The surface of the excavation will be marked with a protective barrier prior to backfilling the excavated area.

- (b) Excavation and disposal of contaminated sediment and sheen abatement;

Contaminated sediment will be removed and disposal will be performed from approximately 400 feet of the creek and a barrier will be placed to prevent the sheen.

- (c) Excavation and disposal of contaminated surface soils;

Surface soil contamination over approximately one acre outside the footprint of the process area will be removed from the top several inches of soil and disposal will be performed.

- (d) Removal and disposal of creosote and treatment sludge;

Approximately 15,000 gallons of creosote remain on-site. Sludge has been stabilized for disposal. A source for reuse of the creosote is being pursued. Sludge will be sent for incineration and remaining creosote may be sent for incineration if reuse is not possible.

- (e) Decommissioning the plant;

The plant will be decommissioned to remove sources of creosote and to allow access to heavily contaminated soil beneath the equipment. The floor of the process area is soil.

- (f) Abatement and disposal of the asbestos insulation on the boiler and treatment cylinder;

All of the asbestos material in the boiler room and the building will be properly abated and proper disposal will be provided to prevent further exposure.

- (g) Removal and disposal of elemental mercury and mercury contaminated soil;

Approximately four pounds of elemental mercury and associated contaminated soil and debris will be properly disposed. Additional sources have been identified in the boiler room and will be removed to prevent further exposure.

- (h) Removal and disposal of debris contaminated with creosote;

Debris generated from decommissioning the plant and performing the removal will be properly disposed of to prevent further contamination.

- (i) Securing the land farm and RCRA impoundment;

A four-foot fence with warning signs placed every 50 feet is required to properly secure these areas.

- (j) The site will be referred to NCDENR for further evaluation of the groundwater contamination;

Complete removal of the source of groundwater contamination and treatment of the groundwater contamination is outside the scope of this removal.

2. Contribution to remedial performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action with respect to the release or threatened release concerned. The removal action will address immediate threats from sources of hazardous substances located at or near the surface of the site until a permanent remedy to the groundwater contamination can be put in place.

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

This is a time-critical removal action; therefore, an EE/CA was not prepared.

4. Applicable or relevant and appropriate requirements (ARARs)

Pursuant to 40 CFR 300.415(j), this removal action will, to the extent practicable considering the exigencies of the situation, attain ARARs and comply with the CERCLA Off-Site rule. A request for the identification of State ARARs was made on February 9, 2011, and NCDENR provided a list of proposed ARARs on February 9, 2011 (Attachment D).

Federal

See Attachment E

State

See Attachment E

5. Project schedule

The response actions needed to mitigate the threats posed by the site are expected to take four months to complete and will continue upon approval of this Action Memorandum.

B. Estimated Costs

PROJECT CEILING INCREASE ESTIMATE			
<u>Extramural Costs</u>	<u>Current Ceiling</u>	<u>Proposed Increase</u>	<u>Proposed Ceiling</u>
<u>Regional Allowance Costs:</u>			
Total ERRS Costs	\$200,000	\$2,240,000	\$2,440,000
<u>Other Extramural Costs Not Funded From the Regional Allowance:</u>			
Total START, including multiplier costs	\$50,000	\$450,000	\$500,000
Subtotal	<u>\$50,000</u>	<u>\$450,000</u>	<u>\$500,000</u>
Subtotal, Extramural Costs	\$250,000	\$2,690,000	\$2,940,000
Extramural Costs Contingency (20% of Subtotal, Extramural Costs; round to nearest thousand)	<u>\$0</u>	<u>\$590,000</u>	<u>\$590,000</u>
TOTAL, REMOVAL ACTION PROJECT CEILING	\$250,000	\$3,170,000	\$3,530,000

Note: CERCLA section 104(b) investigatory costs are not included in the estimate, because they do not count against the removal action project ceiling.

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

Creosote will continue to be released from the surface soil and migrate to the tributary of Deep Creek. Asbestos will continue to be released to the air. The storage tanks will release their contents to the environment. Delayed action may increase public health risks to the adjacent population through prolonged exposure to contaminants.

The waste stockpile is secured only with visqueen and is releasing hazardous substances during rain events.

VIII. OUTSTANDING POLICY ISSUES

None

IX. ENFORCEMENT

The purpose of this Action Memorandum is to document the threats posed to public health, welfare and/or the environment and document the decision to fund and undertake the selected removal action. For administrative purposes, the enforcement strategy is included as an Enforcement Addendum.

Holcomb Creosote Company is the Potentially Responsible Party (PRP). Through email correspondence and discussions at a meeting on January 20, 2011, the PRP is not financially viable to conduct the necessary removal action. A combined General Notice/Information Request/Ability to Pay letter was mailed to the PRP on February 18, 2011 (Attachment F).

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$5,326,000, using the following formula: (Direct extramural + Direct intramural) + [(Current Region-specific Indirect Cost Rate) x (Direct Costs)] = Estimated EPA Costs for a Removal Action or $(\$3,530,000 + \$32,000) + (0.4952 \times 3,562,000) = \$5,326,000$.¹

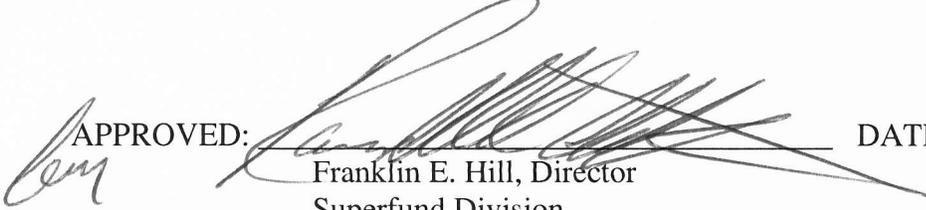
X. RECOMMENDATION

This decision document represents the selected removal action for the Holcomb Creosote Site, in Yadkinville, North Carolina, 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 Holcomb Creosote Site continue to meet the NCP section 300.415(b) criteria for a removal and the CERCLA section 104(c) emergency exemption from the \$2 million limitation, and I recommend your approval of the proposed change in scope of the removal action, the proposed ceiling increase, and \$2 million exemption. The total project

¹ 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 total costs from this estimate will affect the United States' right to cost recovery."

ceiling, if approved, will be \$3.53 million, of which an estimated \$2.44 million will be funded from the FY11 Regional removal allowance.

APPROVED:  DATE: 3/17/11
Franklin E. Hill, Director
Superfund Division

DISAPPROVED: _____ DATE: _____
Franklin E. Hill, Director
Superfund Division

Attachments