

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
\$250,000 EMERGENCY ACTION MEMORANDUM**

**Date:** February 28, 2011

**Subject:** Kerr McGee Chemical (Columbus) Site  
Columbus, Lowndes County, Mississippi

**From:** Steve Spurlin, On-Scene Coordinator  
Emergency Response and Removal Branch (ERRB)

**To:** Regional Emergency Operations Center, 4WD-ERRB  
Shane Hitchcock, ERRB  
Matt Taylor, ERRB  
MSDEQ  
Site File

**I. PURPOSE**

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Kerr McGee Chemical (Columbus) Site (the Site) located in Columbus, Lowndes County, Mississippi under the On-Scene Coordinator (OSC) \$250,000 authority.

**II. BACKGROUND**

**Site Number:** B491  
**TO Amount:** \$75,000  
**TO Number:** EP-S4-07-03-86  
**Contractor:** WRS Compass Inc.  
**CERCLIS Number:** MSD990866329  
**Response Authority:** CERCLA  
**State Notification:** February 16, 2011  
**Start Date:** February 16, 2011  
**Completion Date:** To Be Determined  
**Demobilization Date:** February 17, 2011  
**NPL Status:** Non-NPL

**III. SITE INFORMATION**

**A. Incident Category:**

- Active Production Facility
- Inactive Production Facility
- Active Waste Management Facility
- Inactive Waste Management Facility

- Midnight Dump
- Transportation Related
- Other (creosote waste material generated by land owner)

## **B. Site Location**

### **1. Site Description**

#### **a. Removal Site Evaluation**

On February 14, 2011, the U. S. Environmental Protection Agency (EPA) was in Columbus, Mississippi to conduct sampling associated with the ongoing EPA Superfund Removal Program Removal Site Evaluation related to the Kerr McGee Chemical (Columbus) Site. The first property to be sampled was located at 716 Waterworks Road, Columbus, Mississippi. Upon arriving at the property, OSC Spurlin met with a technical representative for the property owner. The representative escorted OSC Spurlin to a soil pile on the property. A large culvert, consisting of a modified rail car, formerly sat at the location of the pile. The culvert had been removed from the ditch that traverses the property in approximately 1998. This ditch has been impacted by past releases of creosote from the former Kerr McGee facility located at 2300 North 14<sup>th</sup> Avenue, Columbus, Mississippi. The pile contained a mix of soil and creosote material.

The pile was not covered, and the property is accessible by the public. On February 15, 2011, OSC Spurlin was informed by the property owner that he had cut-up and sold the culvert as scrap metal several months earlier. The cutting and moving of the culvert resulted in the generation of the waste pile.

#### **b. Physical location and Site Characteristics**

This waste pile was located at 716 Waterworks Road, Columbus, Mississippi. The property is owned by the Maranatha Faith Center. The Church, a day care, an apartment complex, and numerous homes are in close proximity to the waste pile. The area is not fenced and the property is used frequently as a cut-through for pedestrian traffic.

#### **c. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**

The waste soil stockpile contained significant quantities of creosote related material. Sample results for the material is pending; however, past experience indicates the levels of creosote related constituents, including benzo(a)pyrene, would exceed the Removal Action Levels. Benzo(a)pyrene (B(a)P) is a member of a class of compounds known as polycyclic aromatic hydrocarbons (PAHs) which generally occur as complex mixtures and not as single compounds. PAHs are typically found at creosote wood treating operations.

Benzo(a)pyrene is a hazardous substance, listed in the Title 40 of the Code of Federal Regulations (CFR) Section 302.4, as referred to in Section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended. Hazardous substances from the Site will continue to be a threat to public health, welfare and the environment, if not mitigated. The waste pile is not covered and appears to have already eroded due to rain. The area is frequented by children and adults who come in close proximity to the waste material as they walk across the property. An emergency response was necessary to address the potential direct contact and migration issues for the hazardous substances.

d. Maps, pictures, and other graphic representations

Maps, pictures, and other graphic representations can be located in the site file.

## 2. Description of threat

Hazardous substances, including Benzo(a)pyrene, present in the waste pile and surrounding surface soils pose the following threats to public health or welfare as listed in Section 300.415 (b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP):

***Section 300.415 (b)(2)(i) Actual or potential exposure to nearby human populations, or the food chain from hazardous substances pollutants or contaminants;***

Past investigations and remediation projects conducted by the facility prior to closing documented the presence of hazardous substances in the drainage pathways leading from the Site. The waste material generated when the culvert was cut-up for scrap originated from the ditch where the culvert was formerly located. Historic data indicates the presence of elevated hazardous substances, including Benzo(a)pyrene, in the ditch sediments.

Benzo(a)pyrene (B(a)P) is a member of a class of compounds known as polycyclic aromatic hydrocarbons (PAHs) which generally occur as complex mixtures and not as single compounds. PAHs are primarily by-products of incomplete combustion. B(a)P along with other PAHs are suspected of causing cancer in humans. It is bioaccumulative and does not break down easily in our environment. B(a)P likely causes cancer in humans, can cause skin disorders in humans and animals, and causes harmful developmental and reproductive effects.

The area of the property near the waste material is used as a footpath for surrounding area residents, including children. Children as well as adults could come in contact with the contaminants via windborne dust, inadvertent ingestion

of contaminated soil, and direct contact with the contaminated surface soils and waste pile.

***Section 300.415 (b)(2)(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;***

Analytical results for the surface soils and waste stockpile are pending; however, large pieces of suspected creosote and dark stains, were observed in the material. It likely contains a high level of creosote related PAHs. The area is exposed to the weather. Rain events can result in the erosion of the material potential resulting in the migration of hazardous substances into a nearby drainage ditch which passes through a residential area and community park.

**A. Threats to the Environment**

***Section 300.415 (b)(2)(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;***

As noted earlier, the waste material and associated surface soils are exposed to the weather. Rain could wash contaminated soils and creosote waste material into a nearby ditch. The ditch drains to the Luxapallila Creek which is used for fishing and recreation. If the contaminated soil and waste material were not addressed by an emergency action there is a possibility for increased discharges of hazardous substances to the waterway.

**IV. PLANNED REMOVAL ACTIVITIES**

Anticipated immediate removal activities for the Site include, but are not limited to, the following:

- Excavation of the waste pile and surrounding impacted area;
- Containerizing the waste material and securing containers;
- Sampling the waste material to characterize for disposal;
- Disposal of waste materials off site, if necessary, in compliance with Federal regulations including the CERCLA off site rule.

**V. ESTIMATED COSTS**

**Extramural Costs:**

Regional Allowance Costs:	
ERRS	\$ 75,000
Non Regional Allowance Costs:	
START	\$ 25,000
Subtotal, Extramural Costs:	\$100,000

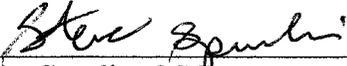
20% Contingency

\$ 20,000

**TOTAL EXTRAMURAL COSTS \$120,000<sup>1</sup>**

## **VI. APPROVAL**

As conditions noted on February 16, 2011 at the Kerr McGee Chemical (Columbus) Site meet conditions set forth under Section 300.415 of the NCP, the OSC has initiated funding of an emergency removal action.



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Steve Spurlin, OSC

Emergency Response and Removal Branch  
U.S. EPA Region 4

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<sup>1</sup> Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on 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.