U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
CSX Mt. Carbon Crude Derailment - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: **POLREP #6**
CSX Mt. Carbon Crude Derailment

Mt. Carbon, WV

To:
From: Dennis Matlock, OSC and Melissa Linden, OSC
Date: 2/22/2015
Reporting Period: 1900 2/21/2015 - 1900 2/22/2015

1. Introduction

1.1 Background

Site Number:	Z3MR	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	OPA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	2/16/2015	**Start Date:**	2/16/2015
Demob Date:	2/16/2015	**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:	E15304	**Reimbursable Account #:**	

1.1.1 Incident Category

Oil Pollution Act (OPA) Response; Emergency Response

1.1.2 Site Description

The location of the CSX derailment is along the left decending bank (LDB) of the Kanawha River, approximate mile point (MP) 88.7, at the confluence of Armstrong Creek. The derailment originated on the eastern descending hillside adjacent to Rt. 61, directly west of Adena Village and northwest of the Town of Mt. Carbon, WV. The train consisted of 109 railcars (107 tank cars and two buffer cars), with two locomotives. Of the 107 tank cars containing oil, 28 of the cars derailed and 19 cars were involved in fires. The discharge area is located between the railroad track, along the eastern descending hillside towards the confluence of Armstrong Creek and the Kanawha River. The Site consists of: the 28 derailed tank cars and associated oil-contaminated soils, approximately 35 by 115 feet in area; the adjacent LDB of the Kanawha River and shore line; and the surface waters of the confluence of Armstrong Creek and the Kanawha River.

1.1.2.1 Location

The incident is located in Mount Carbon, WV.

1.1.2.2 Description of Threat

Discharge of Bakken Crude from 28 derailed traincars that spilled into Armstrong Creek; which flows into the Kanawha River, a navigable waterway.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Responsible Party (RP) has mobilized their hazmat team, security and cleanup contractors to the site. Initial efforts consisted of controlling fires and placing initial boom in Armstrong Creek. Local Fire Department responded to the incident. Initial surface water sampling was done by barge where 4 samples were collected in the Kanawha River. WVDEP, EPA and CSX took split samples of those 4 initial surface water samples. CSX began collecting roving air monitoring data and set sample locations for VOCs and PAHs in the community impacted.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

During the evening of 2/21/2015 Highway 61 was closed to through traffic for clearing work at the derailment Site. Equipment was staged on Highway 61 to facilitate the movement of rail cars onto flatbed rail cars. Three tanks were re-railed, two tanks were placed on rail cars, and two tanks were positioned to be placed on rail cars. To date, nine rail cars have been re-railed. Additional frac tanks were delivered to the Handley storage area. A total of 14 frac tanks were staged at the storage area. There were 7 frac tanks containing 123,962 gallons of oil and two frac tanks containing 21,319 gallons of oil/water. A geo-probe with laser induced fluorescence was being used at the Site to check for soil contamination.

Work continued on the sheet piling barrier. As of 0730 hours, 135 linear feet of the sheet piling had been installed. The work continued around the clock. The barges began to move up the river on 2/21/2015. They overnighted at the London Lock and Dam for safety. The barges arrived to the derailment Site during the afternoon of 2/22/2015. Work was performed according to the approved work plan to safely secure the barges at the site. Airboats were used at the derailment work zone area to collect surface water samples.

During the early morning on 2/22/2015, it was noticed at the Site that the water levels were rapidly declining around the piling wall. It was discovered that the power plant had a faulty reading from their pond sensors and turned their turbines on. This caused a sudden intake of water to the power plant and the water in the river dropped from the normal range, approximately 18 feet, to approximately 16.5 feet. This caused the water level in Armstrong Creek to drop approximately 1 foot in 15 minutes. This drastic drop in water level caused a release of oily material to Kanawha River. Much of this release was still contained in ice chunks and were captured by the contingency boom placed in the Kanawha River. The area between the shoreline and the piling wall was completely drained of water during this event. The area behind the piling wall to the boom was also completely drained of water. When the power plant was notified of the issue, they worked with UC and water flow was returned to normal.

During the night, a spike in VOC was recorded at the work area. VOC readings reached 70 ppm. When this reading was recorded, Benzene was checked and was 10 ppm. Work was halted in the area until an investigation could be completed, as the action level was 0.25 ppm. The investigation showed that the workers were conducting a pre-work screening of the area of the site and a worker stepped into a puddle of product and bent over. The VOC reading was taken at boot level and not at breathing level. VOC readings in the area at breathing level were 0 ppm. VOC readings near the pool at the end of the interceptor trench reached 10 ppm; however benzene levels remained at 0 ppm. Air quality readings at the frac tank area ranged from 0 ppm VOC to 0.3 ppm, with benzene at 0 ppm.

Safety concerns for the day included icy conditions at the Site. Repeated walking and driving over snow had packed the snow to a solid surface that had iced over. Conditions in the excavation area around the interceptor trench were muddy and sloppy. Additional straw, sand, gravel, etc. was brought in to help with footing issues. As a result of the small spill at the frac tank storage area in Handley, the protocol for unloading tank trucks into the frac tanks was amended. It was decided that a worker would be stationed on the roof of the frac tank during all unloading operations to control the discharge hose. Additional containment was also added at the frac tank area.

A plan was discussed with CSX to do outside confirmation surface water sampling. It was determined that CSX conduct their own split sampling events at the WVAWC facility.

The Air Monitoring Plan was amended to include information about mobile air monitoring. CSX received approval to move the flatbed cars carrying the disabled cars from the derailment Site to the Handley rail yard. The amendment to the plan included the addition of personnel to the rail cars who would conduct air monitoring while the cars were moved to the rail yard. The engine would pull the flat cars at approximately 2 mph from the derailment site to the rail yard. The UC was informed that the US Army National Guard CST departed the site on 2/21/2015.

A Press Availability Session was held by the UC at St. Anthony's Catholic Church.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

CSX is the responsibile party.
CSX has been responsive, employing multiple cleanup contractors and environmental consultants to advise them on the technical aspects of the response. CSX has also provided their hazmat team and security on-site. OSC Matlock will coordinate with EPA and WVDEP enforcement personnel, as appropriate.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

EPA will continue to work within Unified Command to provide oversight throughout the incident.

2.2.1.1 Planned Response Activities

Collect oil within the boom and from interceptor trench.
Continue air monitoring and air sampling within the impacted communities.
Continue collection/analysis of raw and finished water at the drinking water plant every three hours.
Transfer product from impacted cars and remove impacted cars from the rail line.
Install sheet piling to assist with containment of the oil along the shoreline of the spill area.
Utilize a barge and vac truck to collect oil from the surface waters of the Kanawha River.
Excavate impacted soil and dispose of appropriately.
Restore basic functionality of maritime transportation system infrastructure.
Restore rail operations.

2.2.2 Issues

Potential release of VOCs into the atmosphere during soil excavation/removal in the vicinity of occupied residences. This issue is being addressed by roving air monitoring and has not had any exceedences.

2.3 Logistics Section

EPA will continue to have 3 START on-site.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

Montgomery Fire Department
CSX
United States Coast Guard (USCG)
United States Environmental Protection Agency (EPA)
West Virginia Department of Environmental Protection (WVDEP)

3.2 Cooperating Agencies

National Oceanic and Atmospheric Administration (NOAA)
U.S. fish and Wildlife Service (USFWS)
Federal Railroad Administration (FRA)
National Transportation Safety Board (NTSB)
Pipeline and Hazardous Material Safety Administration (PHMSA)
WV Army National Guard Civil Support Team (ANG CST)
WV State Police
Montgomery Police Department
WV Department of Highways (WV DOH)
WV Department of Military Affairs and Public Safety (DMAPS)
WV American Water Corporation (WVAWC)
Red Cross

4. Personnel On Site

2 Region 3 EPA OSCs
3 START contractors

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

http://www.epaosc.org/CSXMtCarbonCrudeDerailment

6.2 Reporting Schedule

Daily POLREPs

7. Situational Reference Materials

No information available at this time.