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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: **POLREP #5**
CSX Mt. Carbon Crude Derailment

Mt. Carbon, WV

To:
From: Dennis Matlock, OSC and Melissa Linden, OSC
Date: 2/22/2015
Reporting Period: 1900 2/20/15 - 1900 2/21/15

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 Potentially Responsible Party (PRP) 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 2/20/2015 representatives from CSX and the Montgomery Fire Department visited the residents in Zone 3 – the cul-de-sac of Mt. Carbon with informational sheets about work that would be continuing in their neighborhood. They were advised that they were still under an evacuation order but could not be made to leave their homes. The residents decided to stay in their homes. They were advised that CSX would be available to assist with any questions or needs they may have and that there was a possibility that they could be evacuated again if situations changed. It was decided that although the residents had returned to their homes, the evacuation order would not be lifted as the criteria in the re-entry plan had not yet been met.

Due to long wait times at the one lane section of Highway 61 near the derailment Site, an amendment was made to the traffic plan of action. The length of Highway 61 that was one lane was shortened to approximately 1 mile. Traffic flow moved more quickly after the changes. The Safety Team also issued a reminder to workers that there was to be no stopping along Highway 61 by traffic. They asked that crew and workers help the process by reminding local traffic should they notice anyone stopping along the way.

Air monitoring continued in the communities around the derailment Site. VOC levels remained at non-detect levels in the communities. Air monitoring in the work zone had one minor spike of 0.15 ppm VOC. Additional testing for Benzene was conducted and resulted in a non-detect level.

Weather hampered operations at the site. Snow and icy conditions increased hazardous conditions at the Site. Safety briefings consisted of warnings about the conditions both at the Site and driving to and from the Site. Warmer temperatures during the day caused rain fall that added additional Site hazards. No additional injuries were reported by the Site Safety Team. It was reported that there were two off-site accidents due to the weather. During tree removal activities at the Site, a tree fell onto a resident's fence causing some damage.

No additional progress was made re-railing cars. The total number of cars that were re-railed remained at 6. A press release was drafted and approved by the UC that there were plans to close Highway 61 at 21:00 hours for 7 hours to re-rail the two westernmost rail tanks. Equipment would need to be placed on the highway during these operations. The plan for these activities included contingencies for moving the equipment for emergency vehicles if the need arose.

A plan was suggested to invite media to a staged area in Boomers Bottom when tank clearing and re-railing operations ramped up. It was suggested that a planned event would lessen the potential for interference of media personnel who were trying to get footage of these operations. UC decided that this would be a good idea but would need to be re-visited closer to the operations.

As of the morning of 2/21/2015, the fires were considered to be 100% out. There were no re-flashes in the previous 48 hours. However, during the day, three small "tie fires" broke out at the Site. These fires occurred in an inaccessible area beneath tanks. Plans to open and pump these tanks were put on hold due to the potential for flashing of vapors. A new plan was discussed and would be presented to the UC for approval.

Baker sent double walled frac tanks to replace the majority of the single walled frac tanks that were at the Handley facility. Secondary containment around the single-walled frac tanks was increased to contain 110% of the contents of the tank for 72 hours, per the state regulations. It was reported in the morning of 2/21/2015 that 14,429 gallons of oil/water mixture was stored in the frac tanks at the Handley facility. It was also reported that 77,736 gallons of product was removed directly from the rail tank cars. Pumping operations were reportedly moving quickly. During the afternoon, it was reported that a truck unloading into a double wall frac tank experienced some sort of technical difficulty and began violently shaking. The movement caused the hose to come out of the frac tank and spray oil/water mixture. Some of the oil/water landed on the ground outside the containment and some landed on an adjacent frac tank that was not in containment yet as it had just been delivered. The workers at the frac tank area shut down the pumping operations, reversed the feed and used the hose to vacuum the spilled material from the ground. The oil/water on the top of the adjoining tank was shoveled onto the ground and vacuumed back into the truck. It was reported, by workers, to the WV DEP that the incident was being called into the Jacksonville CSX office.

The sheet piling installation was begun during the evening of 2/20/2015. Work on the sheet piling continued throughout the day on 2/21/2015. Each section of corrugated sheeting was lowered into place via crane and then vibrated to an appropriate depth. The sections of corrugated sheeting were cut to length outside the work zone and hauled in by chain and excavator. It was estimated that it would take approximately 40 hours to place the entire 300 linear feet of sheet piling that was planned.

Barge operations were delayed due to the weather. Ice that had built up on the surface of the barge made it difficult to secure the tanker trucks to the barge. After the ice was removed from the barge, equipment was loaded onto the barge. While loading the equipment, it was discovered that there was not enough room on the barge to load all the equipment. UC met to discuss the problem, ICS-213 was amended to include a second barge for the operations, and work continued.

CSX hauled in flat bed cars to the derailment Site by rail. These cars were to be used to transport large debris and wrecked cars that were not rail-worthy.

CSX proposed a plan to the UC concerning excavation of oil-contaminated soils in the spill area. The plan proposed that after the railcars were removed, trees and vegetation that were damaged or burned during the derailment and fire would be removed. WV DEP contacted the West Virginia Division of Forestry to discuss the removal of the trees. It was determined that any trees removed would be accounted for and replanted. Any trees located on CSX's property would not require replacement. The contractors would then perform a slight scrape of the soils along the down gradient slope located between Rt. 61 and the railroad. The depth and location of the scraping activities will be coordinated with an engineer from WV DOH to ensure that the stability of the hillside was not compromised. Excavation would involve bulldozers pushing the soil towards

the interceptor trench. Both EPA and WVDEP questioned the need for silt fencing. CSX responded that they planned to push all of the soil into the interior of the interceptor trench area, which would contain any potential oil migration from the soils. Live-loading of lined dump trucks would then be implemented along the access road leading to the interceptor trench for removal and transportation of the oil-contaminated soils. The UC requested that CSX draft and submit a plan for these activities.

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

CSX is the potentially responsible 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 USCG 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.

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.