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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: **POLREP #4**
CSX Mt. Carbon Crude Derailment

Mt. Carbon, WV

To:
From: Dennis Matlock, OSC and Melissa Linden, OSC
Date: 2/21/2015
Reporting Period: 1900 2/19/15 - 1900 2/20/15

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 2/19/2015, pumping operations at the derailment location continued. A total of four truckloads of oil were pumped from the railcars and transported to the handling facility at Handley, WV. However, while transferring the oil into the frac tanks, problems were encountered with freezing hoses, connections, and valves. The oil that was pumped from the railcars to the tanker trucks was transferred into frac tanks that contained oil/water that was previously sent to the frac tank storage area. Accurate readings of the amount of material in the frac tanks could not be determined due to frozen oil/water mixture contained in the frac tanks. CSX contacted Baker to get ethylene glycol heaters for the frac tanks. CSX reported that transfer operations were much improved during the day on 2/20/2015. Trucks were being loaded in approximately 20 minutes. Pumping operations continued well throughout the day but it was uncertain how the lower temperatures during the night would affect pumping operations.

Following the lift of the boil water advisory in all areas by WVAWC on February 19, 2015, WVAWC decreased the frequency of sample/analysis of raw and finished water from hourly to every three hours.

No additional flare ups occurred on Site. Re-flash crews remained on stand-by at the derailment Site. Appropriate fire extinguishers were stationed at key locations around the derailment area.

The WVDEP raised a concern with CSX about containment at the frac tank yard. Per SPCC regulations, the secondary containment must be able to contain 110% of the contents of the tank for 72 hours. The Baker tanks were only single walled tanks with secondary containment that was inadequate to contain 110% of the contents. Two options were proposed to CSX. The first option was to replace the single-walled tanks with double-walled tanks. The second option was to increase the size of the secondary containment. CSX planned to acquire as many double walled tanks as possible and extend the secondary containment on any single walled tanks that could not be replaced by the double walled tanks.

Plans were implemented to make the section of Highway 61 at the derailment site a one lane road. Residents were permitted to travel this section of road with pilot cars and flaggers. Reports were received that traffic was flowing along Highway 61, but that there was a delay of approximately 30 minutes each way to motorists. Per the Re-entry Plan, zone 3 (a cul de sac in Mt. Carbon), which is the area immediately adjacent to the derailment site, would not be allowed to re-enter their homes until after work had been completed in the derailment area. However, it was discovered that that the residents in Zone 3 had returned to their homes on 2/19/15, without any knowledge of the UC. CSX and the UC determined that representatives would visit these houses with an informational flyer and discuss the evacuation order that was still in place and allow residents to make an informed decision.

Air quality readings continued to be within normal levels. Community readings continued to be at non-detect levels. Readings in the work zones remained low, with a few sporadic readings ranging from 0.2 ppm – 2.0 ppm VOC. These readings were attributed to the equipment exhaust that was running in the area during monitoring. This reasoning was accepted by the UC because the readings were not constant and did not stay elevated. When these readings were recorded, additional locational monitoring was done for benzene and the levels were non-detect. It was suggested that the community air monitoring plan be amended to decrease the air monitoring to VOC and Benzene readings only, which was agreed to by the UC.

A plan was introduced by CSX Contractors to implement sheet piling along the LDB of Armstrong Creek, extending along the LDB of Kanawha River, and to bring in and work from a spud barge that will be placed down-river from the sheet piling in the Kanawha River. This plan was created to proactively deal with the potential flash flooding that was expected due to rising temperatures. Operations from the barge will focus on removing surface oil from the river. The plan was approved by the UC. Approval was also granted by the US ACOE and US Fish and Wildlife Services, and the State Historic Preservation Officer. While discussing this addition to the Safety Plan, other deficiencies were brought to the attention of CSX. CSX agreed to address the issues and submit an amended Safety Plan.

The CSX contractor brought air boats to the Site on 2/20/2015 to potentially conduct surface water sampling. Two boats were used for safety reasons, in order to use the buddy system on the river. The UC requested that the safety plan be amended to include an Air Boat Operation Plan.

Representatives from the US Army National Guard were on site. They met with the USCG, WVDEP, EPA, and Montgomery Fire Chief. They were briefed on actions to date and the plans for future actions. The local office of the National Weather Service created a presentation for Site specific weather throughout the weekend due to conflicting reporting of the upcoming weather. A representative from the NWS visited the Site and explained the weather patterns they were predicting, which could cause potential flooding and/or dangerous icy Site conditions. Senator Shelley Moore Capito visited the site. She was escorted to the JIC, the UC, and the derailment area. She discussed the accident and train regulations with CSX and FRA personnel.

Safety alerts for the day included notifications of new traffic patterns due to the re-entry of Zone 2 residents, awareness of transfer operations and the associated bonding and grounding procedures and equipment, maintaining line of sight with heavy equipment operators, and being cognizant of changing weather temperatures in the coming days. The local temperatures were expected to rise over the coming weekend which could contribute to additional slip, trip, and fall hazards, as well as the potential for flash flooding. It was also discussed that although the temperatures would be warmer, they would still be low and cold stress and dehydration was still a concern for workers. A safety officer was contacted when a contractor arrived at the derailment site in inadequate safety attire. The contractor was turned away from the Site until appropriate PPE was donned. One accident was reported at the derailment Site when one of the contractor's vehicles scraped a resident's vehicle around a narrow turn. An accident report was begun and additional safety measures were implemented to avoid similar incidents in the future.

It was suggested that an area be designated for media personnel to provide live reports. There was concern that media would attempt to stop on Highway 61 to attempt to conduct live reporting. It was suggested that media perform any live reporting from Boomers Bottom.

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 assessment of railcars impacted by the fires.
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

Closure of Rt. 61 could impact residents' ability to obtain emergency medical assistance.
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.