

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Charleston WV Chemical Leak - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: POLREP #6
Continuation of Response Activities/Removal Assessment
Charleston WV Chemical Leak
Charleston, WV
Latitude: 38.3685800 Longitude: -81.6066300

To: Cindy Santiago, USEPA R3

From: Dennis Matlock and Melissa Linden, On-Scene Coordinators

Date: 2/16/2014

Reporting Period: through 2/16/2014

1. Introduction

1.1 Background

Site Number:	Contract Number:	
D.O. Number:	Action Memo Date:	
Response Authority: CERCLA	Response Type:	Emergency
Response Lead:	Incident Category:	Removal Assessment
NPL Status:	Operable Unit:	
Mobilization Date: 1/9/2014	Start Date:	1/9/2014
Demob Date:	Completion Date:	
CERCLIS ID:	RCRIS ID:	
ERNS No.:	State Notification:	
FPN#:	Reimbursable Account #:	

1.1.1 Incident Category

Tank failure and subsequent chemical release into the Elk River, Etowah, WV.

1.1.2 Site Description

The Site consists of one breached tank, which is component to the facility, along with the soils beneath the tank, the pathway towards the Elk River, and the affected portion of the Elk River.

1.1.2.1 Location

The incident occurred at the Freedom Industries, located at 1015 Barlow Drive, Charleston, Kanawha County, WV 25311.

1.1.2.2 Description of Threat

An imminent substantial endangerment to welfare and/or the public caused by a chemical release.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

WVDEP conducted the initial assessment of the scene, in response to an odor complaint to their Air Division. EPA mobilized to the Site and assumed a support role to WVDEP. EPA received reports through WVDEP that the chemical was identified as "Eastman Crude MCHM", which is a mixture of components, predominantly 4-methylcyclohexanemethanol. There is a licorice odor to the compound, which is caused by 4-(methoxymethyl) cyclohexanemethanol. The material was classified as non-toxic. However, analytical testing for this particular compound, did not exist at the time of the release. Since then, WVAWC, assisted by Dupont, has developed a method and continued to sample the processed water at the drinking water plant.

The spill occurred from one of three tanks that contain the MCHM. The secondary containment around the tanks was inadequate and failed. It was estimated by the RP in a letter dated January 23, 2014, that 10,124 gallons of the chemical were released. However, the volume of the chemical that actually entered the river is uncertain.

The RP utilized facility personnel and initiated the hiring of contractors to place boom along the left descending bank of the Elk River, adjacent to the area of the spill. The RP also hired contractors to conduct land clean-up operations.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

See previous POLREPs for site information and actions conducted from January 9, 2014 through February 10, 2014.

2.1.2 Response Actions to Date

During this reporting period, Freedom Industries gave the West Virginia Department of Highways (WVDOH) the required 48-hour notification of planned excavation near Barlow Road. The planned excavation included clearing the trench between the road and the railroad tracks in an attempt to divert some of the off-site water away from the site. Heavy snowfall during the reporting period delayed this work.

Three-foot diameter culvert pipe, intended to be cut into sections and placed in the intercept trench, was delivered to the site. Work in the intercept trench was also delayed due to the large amount of snow on-site.

The facility continued to empty the storage tanks on the site. Some of this work was made difficult by low temperatures and viscous material in the tanks. The facility proposed a plan to decommission tanks 393 and 394, which are located at the north end of the facility. The proposed plan included cleaning and removal of the tanks. Approval was granted by the EPA, WVDEP, CSB, and the US Attorney's Office to proceed with the plan. All parties agreed that the removal of the tanks, which weigh approximately 47 tons each, would decrease the risk of the hillside slipping and allow extra room for equipment required to decommission the remaining tanks.

The RP's contractor conducted 24-hour monitoring of the sumps and interceptor trench. Pumping operations from the sumps, both inside and outside of the containment area and the intercept trench, occurred as needed. All of the water that has been collected has been pumped into on-site tanks and will be tested and disposed of in accordance with applicable state and federal requirements. A method of disposal of the MCHM-contaminated water has not been determined.

The RP's environmental consultant collected samples from the intercept trench on Friday, 2/14/14. The samples were to be analyzed for general chemistry and treatability. The facility planned to reference these results at an upcoming meeting with the Publicly Owned Treatment Works (POTW), which is a possible outlet for treatment and disposal of the off-site water.

Data through 2/10/14 at WVAWC continues to show non-detect levels for samples that were collected at their intake.

The contractor attempted to excavate a trench in the eastern area of the containment wall. However, at a depth of approximately 4-6 inches, a petroleum odor and an unidentified pipe were discovered. The operation was suspended and the area was backfilled.

Three roll-offs containing MCHM-contaminated liners and soil were removed from the site. Empty roll-offs were delivered to the site.

The WVDEP contacted the US Army Corps of Engineers (US ACOE) to request assistance with possible river levels in the coming weeks. Heavy snowfall during the week has caused concern about rising river levels following the snow melt. The facility and the WVDEP requested that the US ACOE assist by keeping the river level at or below 12 feet by using the Bluestone, Sutton, and Winfield Dams. The precipitation from the previous rain storm and snow melt caused the river to crest at 12 feet and this was approximately 3.5 feet below the interceptor trench. The US ACOE was not able to agree or disagree with the request at that time. An additional on site tank, with a capacity of 400,000 gallons, was being prepared for water storage, in anticipation of increased water flow following the snow melt, which was expected to happen when the temperatures rise in the early part of the following week.

During routine boom maintenance, the contractor discovered a brown mass in the river. The mass floated to the top of the river. The mass had no odor of MCHM. A sample of the mass was collected. The contractor continued to monitor the boom and repair and replace areas of the boom as needed.

The plaintiffs' attorney hired a contractor to push a camera through the culvert pipe that runs beneath the MCHM tank containment area. The pipe appeared to be intact and a video was recorded. The attorney stated that they would provide a copy of the video to WVDEP and EPA.

The CSB maintained a presence on site as they continued their investigation. CSB planned to hire a subcontractor to collect the sample of the tank and to complete 3-D mapping of the facility.

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

The Responsible Party is identified as Freedom Industries, and is under orders from WVDEP. There are four orders and one revision to an order. Orders include: a cease and desist order; an order to develop a plan to empty all 14 tanks on Site; an order to remove all material from on-site above ground storage tanks (AST) by March 15, 2014; an order to report all on-site and all information of MCHM/PPH; and an order to begin to dismantle all ASTs on or before March 15, 2014.

2.1.4 Progress Metrics



<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity in Storage (gallons)</i>	<i>Quantity Shipped (gallons)</i>	<i>Date Shipped</i>	<i>Disposal</i>
MCHM/PPH	liquid	100,233		Starting quantity 1/21/2014	transport off-site
MCHM/PPH	liquid	100,233	10,217	2/6 - 2/16/2014	transport off-site
MCHM/PPH	liquid	90,016	5,180	2/17/2014	transport off-site

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

EPA, EPA's contractors, and the USCG will support WVDEP's oversight of removal activities. The priority at this time is to contain the source and prevent further discharge of contaminants to the river. Future activities will include an assessment of an extent of contamination on Site. EPA will provide support to WVDEP with sampling activities, and other technical support, upon request.

2.2.1.2 Next Steps

- Divert the runoff water that is entering the containment area;
- Maintain/improve as necessary the intercept trench between the Site and the Elk River;
- Dismantle the MCHM tanks on Site and provide the necessary portions of the tanks to investigative entities;
- Remove the three MCHM tanks from the Site.

2.2.2 Issues

- There is the possibility of an unknown amount of MCHM/PPH and potentially other chemical liquids may exist beneath the tank;
- There is an unknown amount of MCHM/PPH that has seeped into the soils/materials located along the river bank;
- There is a large amount of water (approximately 500,000 gallons), potentially contaminated with MCHM, stored in tanks on Site.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
START	\$118,869.00	\$109,058.67	\$9,810.33	8.25%
Intramural Costs				
Total Site Costs	\$118,869.00	\$109,058.67	\$9,810.33	8.25%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

Freedom Industries
EPA OSC on Site (Advisory Role)

2.5.2 Liaison Officer

2.5.3 Information Officer

3. Participating Entities

3.1 Unified Command/Facility (Freedom Industries)

WVDEP
USEPA
USCG
Freedom Industries

3.2 Cooperating Agencies

West Virginia Department of Health and Human Resources (WVDHHR)
National Guard
West Virginia Department of Natural Resources (WVDNR)
Ohio River Valley Water Sanitation Commission (ORSANCO)
West Virginia American WaterWorks Company (WVAWC)
Chemical Safety Board (CSB)
Center for Disease Control (CDC)
Agency for Toxic Substances and Disease Registry (ATSDR)
West Virginia Division of Highways (WVDOH)
Federal Bureau of Investigation (FBI)
Occupational Safety and Health Administration (OSHA)

4. Personnel On Site

WVDEP
USCG
USEPA
START (TechLaw)
Freedom Industries
Civil & Environmental Consultants
Clean Harbors
Diversified Services LLC
CSB
OSHA

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.