

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: POLREP #7
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: 2/24/2014

Reporting Period: through 2/23/2014

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, WVAVC, 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/PPH. 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 16, 2014.

2.1.2 Response Actions to Date

During this reporting period, the facility continued to empty the storage tanks on the site. Samples were taken from the heel in tank 394. A demolition contractor was on site to inspect the tanks and give a timeline for the removal of tanks 393 and 394 at the north end of the site. The contractor requested a 5-day notice to mobilize for the demolition project. Freedom estimated demolition work will take place beginning the week of March 10, 2014.

WVDEP and the facility's contractor received analytical data from some of the samples they had taken. The facility's contractor obtained treatability and chemistry data from the intercept trench water. During a meeting with the Charleston Waste Water Treatment Plant (WWTP), this data was presented to the WWTP and the WWTP seemed amenable to the possibility of attempting to accept the water for treatment. They requested some additional data from the facility before they agreed to accept the water for treatment.

The RP's contractor conducted 24-hour monitoring of the sumps and intercept trench. Pumping operations from the sumps, both inside and outside the containment area and the intercept trench, occurred as needed. All of the water that was collected was pumped into on-site tanks and will be tested and disposed of in accordance with applicable state and federal requirements.

The facility obtained approval to ship the water stored at Poca Blending Facility (Poca) to Waste Management DSI (DSI) in Hurricane, WV for solidification. However, when they began loading the first load, they were informed the WVDEP was not allowing the shipment. The issues presented by the WVDEP were resolved and the facility was given approval to ship the waste water from Poca to DSI. No shipments of waste water from Poca to DSI have occurred yet. The facility planned to ship the first load on Monday 2/24/2014.

The facility's contractor was able to excavate the culvert pipe inside the containment area. Much of this excavation was done by hand due to additional pipes being discovered in the area of excavation. The pipe was then cut and concrete was poured into the pipe, to keep water from flowing through the pipe and into the intercept trench. The contractor began pumping most of the water in the containment area from this location.

Excavation began along Barlow Road to clean out the drainage ditch to allow flow of the off-site water in the intended ditch and culvert built by WVDOH. The contractor used the excavated soil to build the grade of the trench in the direction they wanted. They did not have enough fill material from excavation to complete the grading necessary. The contractor was looking for a source of additional fill material to correct the grade of the trench. Roll offs were filled with soil and with used boom from the river. They were staged on site for disposal.

The facility changed contractors for the boom maintenance. The contractors changed on 2/19/2014. The boom was removed from the river and replaced by the new contractor. The WVAVC was informed the contractors were changing out the entire boom and that the facility did not anticipate any problems with the change. The WVDEP ordered additional boom to be on standby in case there was a delay in the transition. The change out was completed efficiently and in a timely manner.

The facility shipped a load of MCHM/PPH product from the Poca facility on 2/17/2014. As of January 21, there was 100,233 gallons of MCHM/PPH stored at the Poca facility. At the end of this reporting period, 20,577 gallons had been shipped from Poca. They transferred 7,000 gallons of product to a permanent vertical storage tank at Poca on 2/19/2014, as agreed upon by the facility and the WVDEP. As of the end of this reporting period, 77,836 gallons of product remain at the Poca location in Baker Tanks.

The CSB maintained a presence on site as they continued their investigation. CSB hired a contractor to conduct 3D mapping of the facility. They will return to site when the contractor has been approved to begin work.

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>Pre-Shipment Quantity in Storage (gallons)</i>	<i>Quantity Shipped (gallons)</i>	<i>Quantity Remaining after shipment (gallons)</i>	<i>Date Shipped</i>	<i>Disposal</i>
MCHM/PPH	liquid	100,233		100,233	Starting quantity 1/21/2014	transport off-site
MCHM/PPH	liquid	100,233	10,217	90,016	2/6/2014 - 2/16/2014	transport off-site

MCHM/PPH	liquid	90,016	5,180	84,836	2/17/2014	transport off-site
MCHM/PPH	liquid	84,836	7,000	77,836	2/19/2014	transfer to permanent storage
MCHM/PPH	liquid	77,836				

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 350,000 gallons [per the facility on 2/24/2014]), 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	\$117,491.45	\$1,377.55	1.16%
Intramural Costs				
Total Site Costs	\$118,869.00	\$117,491.45	\$1,377.55	1.16%

* 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

EPA Mark Ferrell

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 (WVDOT)
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.

POLREP #7 Last Updated 3/25/2014