

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Pleasant Street Site - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #4
Final
Pleasant Street Site
C505
Detroit, MI
Latitude: 42.2821985 Longitude: -83.1463766

To: Don Deblasio, U.S. EPA
Joseph DeGrazia, MDEQ
Scott Raymond, City of Detroit
Paul Max, City of Detroit Health and Wellness

From: Brian Kelly, OSC

Date: 7/30/2012

Reporting Period:

1. Introduction

1.1 Background

Site Number:	C505	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:		Start Date:	1/19/2011
Demob Date:		Completion Date:	7/31/2012
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	Yes
FPN#:		Reimbursable Account #:	

Incident Category

Voluntary PRP Removal Action

Site Description

The Site is a residential area located in southwest Detroit, Wayne County, Michigan. The Site's meridian coordinates are 42.28 North and -83.14 West. The Site is located 0.4 miles from the Marathon Petroleum Company LP's Michigan Refining Division (MRD) wastewater outfall.

The Site was referred to EPA Emergency Response Branch after residents in the community collected air samples in their basements that showed petroleum compounds.

Description of Threat

Residential homes north and south of Pleasant Street share a common sewer line with MRD. MRD discharges pre-treated effluent water into the sewer lines under an industrial pre-treatment permit (# 074-27370-IU). During the investigation, MRD remained within their permit limits.

An investigation of petroleum compounds in two residential basements found that failure of basement water traps was allowing sewer gas that contains petroleum compounds to enter the homes.

2. Current Activities

2.1 Operations Section

Narrative

In January and February, 2011, EPA conducted an odor investigation of homes near Pleasant Street in southwest Detroit. During the investigation, it was determined two homes did not have functioning basement

sewer traps, which was allowing sewer gases, with petroleum compounds, to enter the basements.

During the investigation of manholes surrounding one home, benzene levels of 2-6 ppm were found at the surface of the manholes. With assistance from Detroit Sewer and Water Division, the source of the benzene was traced to the Marathon refinery. Marathon initially believed the benzene levels were a onetime event, but following a review of system processes and corrective actions - once Marathon started discharging wastewater, benzene levels at the surface of the manholes returned to 1-2 ppm.

To determine whether an exposure pathway existed away from the surface of the manholes, on January 22, 2011, EPA collected four 24-hour Summa canisters outside the home on Pleasant Street and on January 25, collected two Summa canisters inside the home. In addition to EPA collected samples, Marathon collected a similar number of samples inside and outside the home.

Results from this sampling showed <1 ppb benzene in the four canisters collected outdoor; however, the samples were collected on a day when wind speeds averaged between 6-16 miles per hour. The samples inside the home showed benzene between at 8 and 9 ppb (the chronic action level for benzene is 3 ppb).

On January 27, EPA, Michigan Department of Community Health (MDCH), Agency for Toxic Substance and Disease Registry (ATSDR), Michigan Department of Environmental Quality (DEQ), and city of Detroit met to discuss the results of the testing. The agencies agreed the benzene levels were of concern and steps needed to be take to ensure residents were protected.

On February 4, 2011, Marathon submitted to the agencies a plan to assess an area north and sound of the Pleasant Street sewer line. The plan discussed the process of interviewing residents, air monitoring, air sampling, sewer trap inspections, and outdoor air sampling (see Workplan under documents).

On February 22, 2011, a community meeting was held to discuss the project with residents and encourage them to allow inspection of their basement drains.

Over the next several months, the agencies and Marathon identified 62 homes for investigation. Of those 62 identified homes, 42 completed inspection, 12 refused access, and 8 did not responded to multiple flyers and home visits. Of the 42 completed, 1* had a non-functioning trap, 5 had plugged or sealed drains.

*Early in the investigation EPA identified a home on Liebold Street with a failed sewer trap. The owner later denied access to Marathon to investigate and fix the trap.

The second part of the investigation was an evaluation of the potential effects of Marathon's wastewater discharge on sewer gas venting to ambient air from manholes in residential neighborhood. From January 2011 through February 2012 sampled were collected near Pleasant, Liebold, and Liddesdale Avenue. (See Incident Summary Report under documents for a full explanation of sampling)

A review of this data by MDCH "concluded that the concentrations of airborne chemicals reported for this investigation are not likely to increase the risk of cancer or non-cancer health effects. Therefore, emergency response measures would not be necessary at these levels." (see MDCH Letter_to_EPA under documents)

In February 2011, Marathon installed carbon beds and peroxide system to remove petroleum compounds from the wastewater discharge. Monitoring data from February 2011 through March 2012 for benzene concentrations in influent and effluent indicate that the carbon beds and peroxide system were reducing benzene concentrations in the wastewater to non-detect levels.

Following the home visits, yearlong ambient air sampling, wastewater treatment improvements, and health department review of data, EPA, city of Detroit, DEQ, and MDCH held a closing community meeting on July 19, 2012.

Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

MRD performed the assessment and response work voluntarily.

R5 Priorities Summary	
Miles of river systems cleaned and/or restored	0
Cubic yards of contaminated sediments removed and/or capped	0
Gallons of oil/water recovered	0
Acres of soil/sediment cleaned up in floodplains and riverbanks	0
Acres Protected	10
Number of contaminated residential yards cleaned up	0
Human Health Exposures Avoided	60
Number of workers on site	25
Contaminant(s) of Concern	

2.2 Planning Section

Anticipated Activities

No further action is planned.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

City of Detroit

Paul Max -Department of Health and Wellness Promotion

Raymond Scott - Environmental Affairs

Stephen Kuplicki - DWSD

Yousef S. Ahmed - DWSD

William Burbridge - DWSD

MDEQ

Joe DeGrazia

EPA

Brian Kelly

Marathon Petroleum Company

Greg R Shay

Emily L Barron

Joe Marra

Nelson Almond

Michigan Department of Community Health

Christina Bush

4. Personnel On Site

No information available at this time.

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.