United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Friday, January 25, 2008
From: Steven Renninger

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Subject: Brandt Pike Terminal Site
621 Brandt Pike, Dayton, OH
Latitude: 39.7870900
Longitude: -84.1621500

POLREP No.:	1	**Site #:**	
Reporting Period:	October 29, 2007 through January 25, 2008	**D.O. #:**	
Start Date:	12/3/2007	**Response Authority:**	OPA
Mob Date:		**Response Type:**	Time-Critical
Demob Date:		**NPL Status:**	Non NPL
Completion Date:		**Incident Category:**	Removal Action
CERCLIS ID #:		**Contract #**	
RCRIS ID #:		**Reimbursable Account #**	
FPN#	E07508		

Site Description

The Brandt Pike Terminal Site includes four active petroleum products distribution facilities at the Brandt Pike Oil Terminal located at 621 Brandt Pike, Dayton, OH. Each of the four Facilities receives its petroleum products via the Inland Pipeline then pipes the petroleum products to large above-ground storage tanks and dispenses petroleum products to tank trucks or other pipelines for further distribution. The Facilities have been operating since the 1930's-1940's. The storage capacity of each of the facilities is between 8 million to 12 million gallons of oil. The Site is located in a mixed residential, commercial and industrial area. An inspection of the facilities revealed:

1) Beneath the Facilities is a sole source aquifer that provides water for the City of Dayton. Areas of the Site are within Dayton's wellfield protection area and are considered to be within a one-year travel time to the wellfield. Approximately one-half mile north and downgradient of the Facilities is the City of Dayton's drinking water wellfield and the Miami River. The Miami Wellfield provides water to approximately 440,000 persons in the Dayton area.

2) In 1986, Ohio EPA (OEPA), Emergency Response, responded to a report of an oil spill at the Site. Monitoring wells were installed under the direction of OEPA. The monitoring wells indicated that there was widespread petroleum-related groundwater contamination by benzene, toluene, ethylbenzene and xylene (BTEX) beneath the Brandt Pike oil distribution facilities and pipeline. Free phase diesel fuel, jet fuel and gasoline were found floating on the water table in such quantities to indicate that significant releases of oil products have occurred to the groundwater at the Site.

3) In April 1998, sampling at the Site detected a four inch layer of light non-aqueous phase liquid

(LNAPL) in a soil vapor recovery well, in close proximity to the Inland Pipeline. Groundwater sampling conducted in 1998 at a Site well revealed a BTEX concentration of 63,300 ppb in a monitoring well. Methyl Tertiary-Butyl Ether (MTBE) was detected in the soil and groundwater at the Site in 1998.

4) The City of Dayton installed two monitoring wells immediately north of the Site as part of their wellfield protection plan on January 31, 2006. Sampling of these monitoring wells has detected levels of MTBE in excess of 85 ppb and benzene in excess of 164 ppb, indicating groundwater containing oil, MTBE and benzene is moving downgradient in the direction of the residential neighborhood to the north of the Site and in the direction of the Miami River and the Miami Wellfield. On April 30, 2007, Dayton reported that MTBE was detected for the first time in a groundwater monitoring well at a level of 0.280 ppb.

5) Historic spills at the Site have contributed to the presence of a plume of commingled oil, benzene and MTBE contamination in groundwater at and downgradient of the Site which may present an imminent and substantial endangerment to health or the environment because the groundwater contamination plume appears to be moving downgradient in the general direction of (1) a residential area where some residents may continue to use private wells, (2) the Miami River and (3) the City of Dayton's Miami Wellfield which pumps groundwater from the sole source aquifer.

In July 2007, the U.S. EPA and the following respondents have entered into an Administrative Order by Consent (AOC):

BP Products North America Inc
BP Oil Company
Buckeye Terminals, LLC
Inland Corporation
CITGO Petroleum Corporation
Sunoco, Inc (R&N)

Pursuant to the AOC and working under an EPA approved work plan, the Respondents, in order to determine the extent of contamination, will complete the following activities:

A) Perform a field investigation to determine the extent of oil, MTBE and benzene in the groundwater including the installation of monitoring wells screened to detect oil, MTBE and benzene and establish a groundwater gradient.

B) Analyze the fate and transport of oil, MTBE and benzene in groundwater in the area of the Site with respect to the following potential downgradient receptors: (1) any residences with private wells, (2) the Miami River, and (3) the Dayton Miami Wellfield.

C) Evaluate the ongoing petroleum recovery systems to determine their impact on the transport of the oil, MTBE and benzene in groundwater.

D) Perform a vapor intrusion study in the downgradient offsite areas.

September 24, 2007 Update: The Administrative Order by Consent (AOC) has been added to the documents section.

October 18, 2007 Update: The AOC 30-day public comment period started on October 18, 2007. The AOC and related information can be accessed and reviewed via the EPA Website: http://www.epa.gov/region5/sites/brandtpike/index.htm

On October 29, 2007, a technical work plan meeting was conducted with Bill Barber (BP Oil) and the PRPs environmental consultant, Environmental Resources Management (ERM).

On November 13, 2007, a technical work plan meeting was conducted with Bill Barber (BP Oil) and ERM.

December 3, 2007 Update: The effective date of the AOC is December 3, 2007.

On January 10, 2008, U.S. EPA received a monthly report (month ending December 31, 2007) from the PRPs.

January 11, 2008 Update: The December 2007 Monthly Report has been added to the documents section of this website.

On January 17, 2008, the DRAFT "Investigation and Fate and Transport Evaluation Work Plan" was submitted to U.S. EPA, Ohio EPA, ODH, and the City of Dayton for review.

On Monday, January 21, 2008 at 6pm, BP personnel reported a Jet-A fuel spill to the Ohio EPA and National Response Center.

January 22, 2008 Update: According to BP personnel, on Sunday morning, January 20, approximately 9,500 gallons of Jet-A fuel from Tank #6 was released. The cause of the release has yet to be determined, but preliminary observations from BP personnel indicate an equipment or process malfunction. No free product was observed or recovered within the earthen dike area. The entire spill saturated the ground within the tank farm and subsequently migrated onto the groundwater table, which is approximately 20 feet below ground surface. BP contractors on site to determine if excavating test pits/trenches can recover any free product. In addition, four 4-inch temporary recovery wells will be installed to aid in the recovery of the free product.

Current Activities
January 22, 2008:

US EPA OSC Renninger, START, OEPA, City of Dayton, and BP met on-scene to formulate a spill response strategy. BP personnel collected a sample of Jet-A fuel from Tank #6 and submitted the sample to a laboratory location in Tulsa, Oklahoma for fingerprint analysis.

The BP environmental consultant, Parsons, gauged all of the on-site monitoring wells. No free product was detected or observed in any of the wells.

Parsons team began sampling every monitoring well in the on-site well network.

Two 4-foot deep test pits were excavated in the spill area. No product was observed in the excavation pits.

Approximately 20 cubic yards of soil was excavated and placed into a rolloff box for future off-site disposal.

January 23, 2008:
BP officials explained that all future excavation activities near Tank #6 or any above-ground pipe support footer would be conducted no closer than 5 feet and would be excavated at a 2 to 1 slope. These guidelines were issued by BP to protect the structural integrity of the structures within the tank farm area.

Two temporary recovery wells will be installed on Thursday and two additional temporary recovery wells will be installed on Friday.

Fingerprint analysis of the Jet-A fuel from Tank #6 is due on Monday, January 28, 2008.

Parsons completed sampling all of the groundwater monitoring wells on site.

40 additional cubic yards of Jet-A contaminated soil (60 yd3 total) was excavated and placed into rolloff boxes.

BP officials trying to determine how to excavate all of the contaminated soil due to the location of the spill. The spill occurred in an area of the tank farm that is inaccessible to heavy equipment. In addition, the ground is frozen and shoveling the contaminated soil is nearly impossible.

January 24, 2008:
BP indicated to U.S. EPA that a surveyor will be on site on Friday to survey the locations of the recovery wells and the location of the Jet-A fuel spill.

Approximately 12 yd3 of contaminated soil was excavated, to make a total of 72 yd3 of excavated soil to date. All excavated soil is being staged into rolloff boxes.

Rotosonic drilling method is being used to advance 4 monitoring/recovery wells. It is anticipated that no water will be added during the drilling process. Due to soil conditions, drillers advised that about 100 gallons of water woujld be added to each location to provide lubrication for the drill activity. Due to weather and start-up issues, only one recovery well and casing was completed. Bentonite will be added

on Friday. The current plan is to install two recovery wells on Friday and the fourth recovery well on Saturday. A fifth recovery well location has been identified, if needed.

If required, recovery is expected to be able to begin as early as Monday, January 28th.

Groundwater monitoring well sampling has been completed. BP proposes BTEX/MTBE volatile scan and full semi-volatile (EPA Method 8270). Tank #6 product fingerprint results were submitted by the laboratory to BP and will be reviewed.

The post excavation sample plan was discussed between U.S. EPA and BP.

Planned Removal Actions

1) BP to complete installing the fourth recovery well on Saturday, January 26th.
2) Begin recovery spill product from the groundwater on Monday, January 28th.
3) Review groundwater sample results
4) Review fingerprint analysis of product in Tank #6.
5) Collect post-excavation soil samples.

Next Steps

1) All submitted groundwater monitoring well samples were sent to a laboratory for quick turnaround time. Results are due early next week.
2) On Monday, BP contractors to begin attempting to recover product from the four recovery wells.
3) A conference call will be conducted on Jan 28-29 morning to update federal, state and local agencies.
4) Review Work Plan for off-site groundwater investigation.

Key Issues

1) 9,500 gallons of Jet-A fuel was released in the early morning hours of Sunday, January 20th.
2) BP contractors have excavated and staged 72 yd3 of Jet-A fuel-contaminated soil into rolloff boxes.
3) When the Jet-A fuel was released, the earthen containment area did not contain the spill. The entire spill leached into the soil and potentially leached into the shallow groundwater (groundwater is about 20' below ground surface)

response.epa.gov/brandtpiketerminal