United States Environmental Protection Agency
Region III
POLLUTION REPORT

Date: Wednesday, July 10, 2013
From: Michael Towle, On-Scene Coordinator

To: Dustin Armstrong, PADEP SERO

Subject: Removal Site Evaluation
Metro Container Corporation
2nd & Price Street, Trainer, PA
Latitude: 39.8249606
Longitude: -75.3990472

POLREP No.:	50	**Site #:**	032H
Reporting Period:		**D.O. #:**	
Start Date:		**Response Authority:**	CERCLA
Mob Date:		**Response Type:**	
Demob Date:		**NPL Status:**	NPL
Completion Date:		**Incident Category:**	Removal Assessment
CERCLIS ID #:	PAD044545895	**Contract #**	
RCRIS ID #:			

Site Description

The Site is comprised of two tax parcels located south of the intersection of West 2nd Street and Price Street in the Borough of Trainer, Delaware County, Pennsylvania. The parcels are currently owned by an entity that did not conduct the original operations at the Site and occupied by an entity involved in painting. The Site is surrounded by a chain-link fence and covers an estimated 10.4 acres.

For more than 100 years, the Site has been used exclusively for industrial and commercial purposes. The Site was occupied by the former Delaware Oil Works in the 1890s. By 1913, process buildings and dozens of tanks owned by Manufacturers Paraffine Company were present. In 1920, Stauffer Chemical Corporation (Stauffer) began manufacturing carbon disulfide at the Site. During this period, an earthen impoundment was created. Additionally concrete basins holding tanks were constructed. In 1963, steel drum recycling and reconditioning operations began at the Site and continued into 1989 under several different owners: Joseph A. Reis Company (1963-1969), Universal Container Corporation (1969-1983), First Union Commercial Corporation (briefly in 1983), and Metro Container Corporation (1983-1989). At the peak of drum recycling operations at the Site, approximately 450,000 drums were processed annually.

The various drum recyclers received drums containing residual quantities of hazardous substances, paints, petroleum products, and other substances from various clients. Once inside a large brick building, the drums were emptied of residual material, cleaned using caustics and other liquids, stripped of paint using acids, rinsed, and repainted. Wastewater from this process was directed to the earthen impoundment and subsequently to one of the concrete basins through pipes or trenches. An aerial photograph from 1975 suggests that the earthen impoundment was being filled and that the liquid was being conveyed to a concrete basin.

An aerial photograph from 1953 depicts a rectangular feature along Stoney Creek. The feature is at the position of a concrete basin used as a containment system for tanks which are visible within the basin in later aerial photographs. The 1953 aerial photograph also depicts small sumps through which waste liquids from the facility were likely transferred. The impoundment is first visible on an aerial photograph from 1959 located immediately west of the sumps. In Site records, the small sumps are described as the "screen box" and "settling tank," while the impoundment is commonly identified as a "disposal lagoon."

Prior to filling the earthen impoundment, Site operators began to use the concrete basin as part of the wastewater aeration process. Aerial photographs from 1965 and 1970 show tanks lying in the containment basin. But, an aerial photograph in 1975 shows the containment basin to be full of liquid and a connection between the concrete basin and the sumps. Beginning in 1986, State reports indicate that the concrete basin was being used to contain untreated liquid wastes and sludges. The concrete basin covered an area of 1,000 square feet and was 13 feet deep. Secondary containment around the basin consisted of

mounded dirt. The OSC believes that the concrete basin originally was used for carbon disulfide storage tanks which are typically submerged in water.

In the 1980s, State inspection reports began to note the presence of drums filled with untreated liquid wastes and sludges stored throughout the relatively flat western portion of the Site. Thousands of drums were observed overtopping and releasing liquid wastes and sludges directly to the ground.

In addition to issues with liquid and sludge wastes, historical inspection reports identify the burial of crushed drums in shallow trenches on the northern and northwestern portion of the Site, including along Stoney Creek.

The Site was the subject of a Removal Action initiated by EPA in June 1988 and completed by Potentially Responsible Parties pursuant to an EPA Order. The primary goals of the Removal Action were to address contaminated liquids pooled at the Site and migrating from the Site towards Stoney Creek alongside the Site and removal of thousands of drums containing residuals.

The Removal Action was restarted in 1990 to address drums unearthed during investigations at the Site. The investigations were conducted in response to learning of drum burial activities during legal proceedings.

From 1989 through 2000, the property was held in foreclosure and was inactive. In 2000, Trainer Industries, LLC entered an Agreement and Covenant Not to Sue with the United States on behalf of EPA, and purchased the property through a sheriff's deed in 2001. The Site is currently occupied by an operating business.

In 1998 and 1999, assessment of the property was conducted by prospective purchasers of the property. Numerous hazardous substances were identified in Site soils and ground water as well is in the sediments of adjacent Stoney Creek. The assessment included a geophysical investigation of the subsurface of a limited portion of the property. Notable is the description of a "water-filled ditch" heading westward from the buildings toward the location of the former impoundment. This ditch is located at the position of a buried pipe which formerly conveyed liquids to the former impoundment and is visible on an aerial photograph from 1990.

In November 2005, a site characterization was completed by a prospective purchaser. The report identified numerous pipes of unknown origin and seeps entering Stoney Creek from the Site; subsurface soil contaminated with NAPL, sludges and very high concentrations of PCBs; dissolved ground water plumes of PCBs, PAHs, pesticides, VOCs and inorganic elements; and buried crushed drums, flyash, and sludge. The 2005 assessment activity included an evaluation of the potential for buried drums throughout the majority of the Site. Several areas of potential drum burial were identified resulting in the excavation of 4 trenches to investigate. One of the trenches in the northwestern area of the Site found numerous crushed drums (with residual contents) and drum lids. Another trench found a crushed drum, concrete foundation, and an unknown pipe. A third trench found a 15-inch steel pipe which is believed to be the pipe which conveyed liquids from the building to the earthen impoundment.

Removal Site Evaluations were completed by EPA in March 2000, November 2007, and April 2009. The March 2000 evaluation focused on a search using geophysical methods for potential buried drums in a limited area of the Site. The November 2007 Removal Site Evaluation was conducted, in part, to confirm the analytical results generated during the 2005 site characterization report. The April 2009 Removal Site Evaluation focused on sediment concentrations in the Delaware River at the mouth of Stoney Creek, and included the analysis of 209 PCB congeners.

In July 2010, EPA conducted limited soil sampling at the Site and replicated sediment sampling conducted in 2009 in support of Hazard Ranking System (HRS) screening for potential listing on the NPL. The various investigations identified a correlation between the congeners found at the Site and those identified in sediment samples. The Site was ultimately listed on the NPL in March 2012.

Hazardous substances are located throughout the Site based upon consideration of existing historical data. Sampling and analysis of subsurface soil, ground water and sediment conducted at the Site by EPA and others since 2005 confirm high concentrations of PCBs, pesticides, PAHs, and other organic compounds and inorganic elements. Test excavations and soil cores in the earthen impoundment area, concrete basin area, and areas where drums of sludge were stored reveal the presence of NAPL and sludge and the highest levels of hazardous substances identified in the Site data. The NAPL and sludge area extends to Stoney Creek; seeps are evident.

The PCBs identified in soil at the Site include Aroclor-1248, Aroclor-1254, and Aroclor-1260. The

highest concentration of total PCBs identified in soil was 1,300 mg/kg. Elevated PCBs also exist in the area of the NAPL where organic contaminants may facilitate the migration of PCBs in the environment. Ground water in this area contains elevated PCBs indicating that mobilization of this contaminant is occurring.

Pesticides identified in soil at the Site include dieldrin (2.70 mg/kg), chlordane (27.1 mg/kg), dichlorodiphenyl-dichloroethane (DDD)(52.2 mg/kg), and dichlorodiphenyltrichloroethane (DDT)(32.5 mg/kg). Elevated pesticide concentrations were predominantly located on the northern and northwestern portion of the Site adjacent to Stoney Creek.

PAHs identified in soil at the Site at elevated concentrations include benzo(a)anthracene (1000 mg/kg), benzo(a)pyrene (990 mg/kg), benzo(b)fluoranthene (370 mg/kg), dibenzo(a,h)anthracene (330 mg/kg), indeno(1,2,3-cd)pyrene (210 mg/kg), chrysene (1,300 mg/kg), benzo(k)fluoranthene, 1-methylnaphthalene, and naphthalene. PAHs in soil were predominantly present at and in the vicinity of the former earthen impoundment and concrete basin along with NAPL.

Inorganic elements identified in soil at the Site include arsenic (92.1 mg/kg), lead (19,300 mg/kg), and mercury (24.0 mg/kg). The majority of the elevated arsenic concentrations were located south of the concrete holding tank in the footprint of the former impoundment and concrete basin. The elevated concentrations of lead and mercury also occurred within the footprint of the former earthen impoundment.

Dissolved-phase ground water plumes of organic contaminants are found at the Site, generally originating in the vicinity of the former earthen impoundment and concrete basin areas and migrating toward Stoney Creek. The concentration of total PCBs in ground water in the area of the former impoundment adjacent to Stoney Creek is 122,000 µg/L. In addition, these plumes include benzo(a)anthracene (4,100 µg/L), benzo(a)pyrene (3,400 µg/L), benzo(b)fluoranthene (2,400 µg/L), dibenzo(a,h)anthracene (2,200 µg/L), indeno(1,2,3-cd)pyrene (1,500 µg/L), chrysene (6,400 µg/L), benzo(k)fluoranthene (2,400 µg/L), and naphthalene (6,400 µg/L), among others. These concentrations are indicative of the presence of NAPL, and given the proximity to Stoney Creek, are expected to be a continual source of contamination if the contaminated soil and source material in the former sources is not addressed. Along with the NAPL, soils in this area contain VOCs (e.g., toluene) and SVOCs (e.g., trichlorobenzene) which may facilitate the migration of the PCBs into the ground water.

Current Activities

A removal site evaluation (RSE) was completed by the OSC and the RPM in June 2013, in accordance with the NCP, 40 C.F.R. §300.410. The RSE considered available environmental information and data along with an on-Site assessment. The RSE identified a release and threatened release of hazardous substances from several principal source areas at the Site. These source areas include:
1) a former earthen impoundment (i.e., disposal lagoon) area used for storage of a variety of liquid wastes (this source area also includes one or more pipes, culverts and sumps through which wastes flowed from the main building into the impoundment as well as former waste treatment tanks at various periods during Site operations);
2) a highly contaminated soil area in which a concrete basin (and its earthen containment), former structures of uncertain purpose, and hundreds of waste sludge drums were previously located;
3) an area of soil (including shallow soil) contaminated by elevated concentrations of polychlorinated biphenyls (PCBs); and,
4) an area of buried and crushed drums containing residual hazardous substances and other unknown materials.

These source areas contain elevated concentrations of hazardous substances. Non-aqueous phase liquids (NAPL) and sludge resulting from historical operations at the Site are typically associated with the elevated concentrations of hazardous substances. Hazardous substances releasing from these source areas into the environment include PCBs, pesticides, polycyclic aromatic hydrocarbons (PAHs)(e.g., benzo(a)pyrene), volatile organic compounds (VOCs)(e.g., toluene), semi-volatile organic compounds (SVOCs)(e.g., trichlorobenzene), pesticides (e.g., chlordane), and inorganic elements (e.g., lead).

The Site also includes multiple systems of underground pipes. The pipes are of unknown purpose. The pipes are documented to discharge storm water and, formerly, waste waters from the Site. Two of these pipes are known to have discharged unknown substances directly into Stoney Creek for unknown reasons.

The source areas are adjacent to and connected to Stoney Creek and, downstream, to the Delaware River. The release of hazardous substances from the source areas occurs through pipe connections and seeps directly into Stoney Creek as well as from ground water discharge. Some of the contaminated soils

are relatively shallow (e.g., less than 2 feet) or at the surface, may migrate into Stoney Creek via erosion during storm events, and may be exposed to human receptors.

The OSC and RPM discussed and evaluated actions necessary to mitigate the release of hazardous substances from the Site.

The OSC initiated activity to further assess the pipes and drains beneath the Site to try and identify points of origin, contamination sources, and location.

Next Steps

The OSC and RPM recommend that actions be conducted to mitigate the ongoing release of hazardous substances from the Site. Such actions will be proposed to be consistent with Remedial Actions anticipated.

The OSC and RPM will coordinate with the Site owner in the conduct of additional assessment activity focusing on the pipes and drains beneath the Site.

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