

US EPA ARCHIVE DOCUMENT

Determination of No Further Action

**Former Polymer Technologies Corporation Facility
(Currently Lucent Polymers)**

**1800 Lynch Road
Evansville, Indiana**

IND 007 007 198

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

June 2014

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INTRODUCTION

This document for the former Polymer Technologies Corporation Facility (PTC) (currently Lucent Polymers), located at 1800 Lynch Road, Evansville, IN and hereinafter referred to as “Facility” or “Site”, explains the basis for the United States Environmental Protection Agency’s (EPA’s) determination that no further action is required for this Facility.

This document summarizes information that can be found in greater detail in the April 29, 2005 Limited Phase II Site Investigation Report conducted for Lucent Polymers, the April 13, 2012 Letter Report conducted for EPA, and other documents in the administrative record for the former PTC Facility.

DETERMINATION

EPA has made a determination that no further action by the federal RCRA corrective action program is required at the former PTC Facility at this time.

FACILITY BACKGROUND

Location

The former PTC is located at 1800 Lynch Road in Evansville, Vanderburgh County, Indiana. The Site is located in an industrial area bordered to the south by Lynch Road, a technical college, and agricultural land. Hitch & Peters Road borders the Site to the east. Beyond Hitch & Peters Road are manufacturing and distribution facilities. Garrison Avenue borders the Site to the west and north. Beyond Garrison Avenue is open land, a hotel, and U.S. Highway 41. The Facility has one building with a storage pad area on the north side. A drainage ditch runs along the northeast side of the Facility (see Figure 1).

The 7-acre Site is developed with an approximately 45,000 square foot plastics extrusion facility and a 20,000 square foot warehouse addition at the northwest corner of the building.

History

The Site appears to have been agricultural land through at least 1940. The Site remained undeveloped through the late 1950s and was initially developed in the mid-1960s. Details regarding site operations or former site occupants from the 1960s through the mid-1970s were not available for inclusion in this report. From 1976 to 1992, Flair Molded Plastics, Inc. (Flair) owned and operated the Site; from March 1992 to September 1994, Flair leased the property to PTC. PTC was evicted from the 1800 Lynch Road property in March 1994 by the Internal Revenue Service, and was subsequently administratively dissolved (November 2, 1994). The current owner of the 7-acre Site is Lucent Polymers (Lucent). Lucent operates a plastic compounding facility which manufactures plastic resin pellets for various plastic molding and forming industries. Scrap plastic is processed into new material and cut into small pellets. Lucent added warehouse space in the northwest portion of the site building in 2003-2004. This portion of the Site has been graded and gravel-paved for truck and trailer parking.

Waste Generation and Management History

Based on an inspection of the PTC facility and operations conducted by the Indiana Department of Environmental Management (IDEM) on September 27, 1993, the following wastes were identified on the property: waste thinner (acetone and methyl ethyl ketone [MEK]), paint-related material, filter material, waste MEK paint gun cleaner, acetone waste rags, and paint gun cleaning filters. These wastes were located in a container storage area on a storage pad on the north side of the Facility and in the grassy area immediately south of the former storage pad. Together, these areas comprised the RCRA Hazardous Waste Container Storage Area, which is identified as Solid Waste Management Unit (SWMU) 1.

PTC initially failed to notify IDEM that hazardous wastes were being generated and stored at the Site for longer than the allowable generator accumulation period under RCRA (i.e., 90 or 180 days). PTC never applied for a RCRA permit; however, in April 1994, PTC submitted a notification of regulated waste activity to IDEM. In the notification, PTC identified itself as a large quantity generator (LQG) of hazardous wastes carrying waste codes D001 (Ignitable Waste), D035 (Methyl ethyl ketone), F003 and F005 (Spent non-halogenated solvent).

Based on information gathered by IDEM, as of September 1993, the Facility had never shipped hazardous waste off site to a RCRA-permitted hazardous waste treatment, storage or disposal facility. Subsequent to the 1993 IDEM inspection, PTC coordinated the removal and subsequent disposal of F005 hazardous paint wastes through a Chemical Waste Handling Agreement with Sub-Tech, Inc. on March 18, 1994. IDEM issued a notice of violation (NOV) cause No. H-11777 to the facility on July 14, 1994 based on the September 1993 inspection. On September 8, 1995, an inspection performed by IDEM did not identify any hazardous wastes remaining on site.

In January 1996, Flair met with IDEM to resolve the 1994 NOV. A final Agreed Order was issued on February 21, 1996. The Order required Flair to submit a RCRA Closure Plan for the former Hazardous Waste Container Storage Area in the north portion of the facility. This closure plan was submitted to IDEM in March 1996. On November 27, 1996, the Closure Plan was approved by IDEM. Flair initiated a soil investigation at the site in April 1997. This investigation included an evaluation of the area where leakage was observed during the September 1993 IDEM inspection. IDEM conducted another inspection on May 16, 1997 which confirmed that there was no evidence of hazardous waste remaining at the facility. Additional detail on the April 1997 investigation and the February 1999 closure of the former hazardous waste storage area is provided below in the discussion of SWMU 1.

Aside from the closure of the former hazardous waste storage area in 1999, no further RCRA Corrective Action has taken place at the Facility.

A project manager from EPA's corrective action program made a site visit in July 2012 to meet with representatives of the new facility owner, Lucent, and observe the conditions at the Site. The Facility is developed with a 45,000 square foot plastics extrusion building and a 20,000 square foot warehouse addition. The Site is covered with buildings, concrete, asphalt and gravel and a drainage ditch/creek runs along the north property boundary. The current Site owner, Lucent, is not actively generating hazardous waste, but has notified IDEM that they are a Conditionally Exempt Small Quantity Generator (CESQG) under RCRA. Lucent uses additives which contain metals such as arsenic, chromium, and lead, as part of their production processes. Because of this, Lucent notified EPA and IDEM of their status as a RCRA CESQG, a precaution should the additives not be used as intended in the production process and require disposal off-site. Lucent is currently working with a consultant to determine if these additives would in fact be classified as listed or characteristic hazardous wastes should they not be used as intended in the production process; if they are determined not to be hazardous, Lucent will work with IDEM to reclassify to non-generator status.

Geologic and Hydrogeologic Setting

According to the *Soil Survey of Vanderburgh County, Indiana* (U.S. Department of Agriculture, Soil Conservation Service), the soils beneath the site consist of the Des Moinesian soil series. These soils consist of silty clays and possess a high water capacity and low permeability.

The unconsolidated subsurface materials encountered at the Site consist of crushed stone or sandy fill to a depth of up to two feet below ground surface (bgs). Twelve feet of medium to coarse fill sand was also encountered in a soil boring location advanced along the east side of the building. This type of fill sand is consistent with a former underground storage tank, although

none was known to be reported at the Site. The fill was underlain by a brown to gray clayey silt and brown silty clay to a depth of up to 15 feet bgs. The silty clay was underlain by a gray clayey silt to the maximum depth investigated, 24 feet bgs.

Groundwater was encountered at various depths corresponding to moist or wet soils at depths ranging from 8 to 20 feet bgs. No bedrock was encountered at any of the borings advanced at the site. Shallow groundwater flow typically mimics the surface topography and flows towards the nearest body of water. The estimated groundwater flow direction was based on field observations, topography of the area and review of topographic maps. Based on the available information and site conditions, shallow groundwater in the area is expected to flow to the north towards the adjacent deep drainage ditch/creek.

Ecological Setting

The entire Facility is covered by gravel, concrete or asphalt parking lots and buildings with the exception of a drainage ditch/creek to the north of the operations. The ground surface at the Facility is so disturbed and of such poor quality that the small amount of vegetation growing on-site consists primarily of invasive and opportunistic herbaceous and woody plants. In general, the limited on-site habitats have been heavily influenced by historical land use and there is no high-quality habitat at the facility. Although there are no permanent aquatic habitats on-site, there is a drainage ditch which runs northwest and southeast of the Site, terminating at Little Pigeon Creek located to the northwest of the Site. Because the area surrounding the Site is primarily industrial in nature, the surrounding habitats are of low ecological concern.

The only endangered species listed for the county by the U.S. Fish and Wildlife Service are the Indiana Bat and the Sheepnose Mussel. Per the U.S. Fish and Wildlife Service, Sheepnose mussels live in larger rivers and streams where they are usually found in shallow areas with moderate to swift currents that flow over coarse sand and gravel. However, they have also been found in areas of mud, cobble and boulders, and in large rivers they may be found in deep runs. After hibernation, Indiana bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees. During summer, males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. Indiana bats also forage in or along the edges of forested areas.

Given the Site's physical setting, the lack of quality ecological habitat both on- and off-site, and the results of the SWMU 1 closure investigations, the Site would not be expected to provide suitable habitat for these listed endangered species and the level of ecological risks from site contaminants has been determined to be negligible.

Investigation Results

SWMU 1 – Former Hazardous Waste Container Storage Area

Description and Release History

This SWMU encompasses the former storage pad and the grassy area to the south of the former storage pad. The area was used for the storage of D001, D035, F003, and F005 hazardous wastes generated at the Facility.

Release Control, Response Actions, and Environmental Data

Flair contracted with Koester Environmental Services Inc. (Koester Environmental) to complete closure as outlined in IDEM's 1996 Agreed Order. In April 1997, a soil investigation was conducted at this SWMU to determine the nature and extent of contamination associated with historic PTC operations. Consistent with the approved Closure Plan, Koester Environmental collected 43 soil samples for field screening with a photoionization detector (PID). Ten soil borings were then advanced to a maximum depth of 2 feet bgs near the initial sampling points with the highest PID results. Low levels of semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs), including tetrachloroethylene at 0.01 milligrams per kilogram (mg/kg), were reported in soil collected from beneath the former storage pad. Soil samples collected from the adjacent grassy area contained no detectable VOCs or SVOCs. A sediment sample collected from the adjacent drainage ditch also contained polynuclear aromatic hydrocarbons (PAHs) at concentrations ranging from 1.41 to 4.68 mg/kg.

In a letter dated December 9, 1998, IDEM noted that contamination was observed above the practical quantitation limits (PQLs) in three borings in the area of the former storage pad, but none of the detected concentrations exceeded the Tier 1 default values used in IDEM's risk-integrated system of closure (RISC). After considering these data, IDEM indicated that RISC levels could be used to document acceptable closure for the former storage pad, provided that Flair advance and sample four additional borings to a minimum depth of five feet bgs. In the same letter, IDEM concluded that the grassy area did not require further investigation. IDEM also noted that the PAHs found in the sediment sample were not consistent with wastes known to have been stored at the site by PTC. Consequently, Flair was not required to conduct any further investigation or RCRA corrective action at the sediment sampling location.

In a February 8, 1999 letter to IDEM, Koester Environmental, on behalf of Flair, requested formal closure of this SWMU under RCRA. In a February 25, 1999, response letter, IDEM confirmed that closure of this SWMU was complete. IDEM also confirmed that the Facility was now classified as a non-handler.

Phase II Environmental site Assessment (ESA) 2005

In 2005, Clearview Capital, LLC performed a Phase II Environmental Site Assessment (ESA) for Lucent's 1800 Lynch Road facility. The assessment was performed to investigate potential environmental concerns identified during a Phase I ESA conducted at the Site. The Phase I ESA identified a potential for solvent impacts based on the use of the Site back to the mid-1970s by an earlier plastics manufacturer (Flair). The Phase II ESA analyzed soil and groundwater samples to evaluate the environmental conditions at the locations of historical chemical use at the Site, as well as the former hazardous waste storage area closed by IDEM. These ESAs were not conducted as part of investigations under RCRA, but as part of due diligence related to the sale of the property to determine the potential for environmental risks at the Site.

On April 22, 2005, a total of eight soil borings were made to investigate historical chemical use at the Site (locations are depicted on Figure 2). Soil samples were collected at boring locations in which field screening suggested the greatest potential impact. If field screening did not suggest impact, the soil sample collected from the interval just above the shallow water table was retained for potential analysis. Seven groundwater samples and five soil samples were collected and selectively analyzed for: VOCs, PAHs, bis(2-ethylhexyl)phthalate and total petroleum hydrocarbons (TPH).

Results of the Phase II ESA

Soil Samples

A total of eight soil borings were advanced at the Site with five shallow soil samples selectively analyzed for VOCs, PAHs, bis(2ethylhexyl)phthalate and TPH analysis, depending on the location. The soil sampling results are summarized below, and are presented in Table 1.

Borings GP-1, GP-2, GP-3 and GP-7 were advanced to investigate overall historical Site use. Borings GP-4, GP-5 and GP-6 were advanced to investigate overall historical Site use as well as to investigate the former soil sample investigation area (former hazardous waste storage area) north of the building. Boring GP-8 was originally installed to investigate overall Site use and the presence of a 500-gallon kerosene Aboveground Storage Tank (AST). However during the advancement of the boring approximately 12 feet of suspect fill sand was encountered. This type of fill sand is typically used as Underground Storage Tank (UST) backfill. Additionally, a

rectangular asphalt patch (12 x 18 feet) and cut off conduit was also observed in this area that could be evidence of a past UST in this area.

No elevated PID readings were recorded within any of the borings advanced across the Site. No odors were detected with the exception of a light petroleum odor detected in borings GP-6 and GP-8. No other suspect staining or fill materials were encountered at the Site.

Soil sample GP-1 and GP-4 were collected and analyzed for VOCs. Samples GP-5 and GP-6 were analyzed for VOCs, bis(2ethylhexyl)phthalate and PAHs. Due to the presence of suspect fill materials encountered in boring GP-8, the soil sample at this location was analyzed for VOCs, PAHs and TPH.

The results indicated that there were no VOCs detected at any of the sample locations with the exception of a low concentration of toluene (0.0075 mg/kg) at GP-6, which was well below the default closure level of 12 mg/kg. A few PAH compounds were also detected in soil samples GP-5 and GP-8, but these concentrations were also below all applicable clean criteria. Soil TPH concentrations from GP-8 were also below the state action level.

Groundwater Samples

As part of the subsurface sampling activities conducted on April 22, 2005, seven temporary well points were installed through the centers of the borings to assess the groundwater at the Site. The approximate locations of the borings/wells are shown on Figure 1. The temporary well points were screened to intercept the shallow groundwater unit beneath the Site.

To evaluate the historical use of the Site, seven groundwater samples were collected for analysis. All of the samples were analyzed for VOCs with four of the samples also analyzed for PAHs. Two of the groundwater samples were also analyzed for bis(2ethylhexyl)phthalate, due to past detections reported in a previous sampling investigation conducted in this area. Additionally, TPH was analyzed in the sample at GP-8, due to the apparent former location of a UST in this area. The groundwater sampling results are summarized below and are presented in Table 2.

Three temporary wells (GP-1, GP-2 and GP-7) were advanced to investigate overall historical Site use. Temporary wells GP-4, GP-5 and GP-6 were also advanced to investigate overall historical site use and to investigate the former soil sample investigation area (former hazardous waste storage area) north of the building. Temporary well GP-8 was installed to investigate overall Site use, presence of a 500-gallon kerosene AST and suspect fill materials.

No suspect odors or staining was observed at any of the seven temporary well locations installed at the Site. All wells were installed with a 10 foot-long well screen and appropriate riser.

Groundwater was observed to be in several different moist to wet clayey silt layers between 8 and 20 feet with no consistent water-bearing unit across the Site.

No VOCs, PAHs, bis(2ethylhexyl)phthalate or TPH was found above the detection limit at any of the temporary well locations. Groundwater impact was not found at any of the sampling locations installed at the Site.

Table 1- Soil Analytical Results (2005)

	RISC Industrial Closure Level ¹ (mg/kg)	GP-1	GP-4	GP-5	GP-6	GP-8
Volatile Organic Compounds USEPA Method 8260						
Acetone	370	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	0.35	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.51	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	2.7	<0.005	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.7	<0.010	<0.010	<0.010	<0.010	<0.010
2-Butanone (MEK)	250	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	82	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.29	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	27	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.51	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane	10	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	4.7	<0.005	<0.005	<0.005	<0.005	<0.005
Chloromethane	500 ³	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	58	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.15	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	42	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	5.8	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	14	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.25	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.2	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,3-Dichloropropene	0.2	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	160	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	1400 ³	<0.010	<0.010	<0.010	<0.010	<0.010
Methyl-tert-butylether (MTBE)	32	<0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-pentanone (MIBK)	75	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	1.8	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	550	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.85	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.64	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	96	<0.005	<0.005	<0.005	<0.0075	<0.005
1,1,1-Trichloroethane	280	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.3	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.082	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	430	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	0.027	<0.010	<0.010	<0.010	<0.010	<0.010
Xylene, Total	170	<0.005	<0.005	<0.005	<0.005	<0.005
Polynuclear Aromatic Hydrocarbons - USEPA Method 3510C/8270SIM						
Acenaphthene	1200	NA	NA	<0.050	<0.050	<0.050
Acenaphthylene	180	NA	NA	<0.050	<0.050	<0.050
Anthracene	51	NA	NA	<0.050	<0.050	<0.050
Benzo(a)anthracene	15	NA	NA	0.0333	<0.0087	0.0464
Benzo(a)pyrene	1.5	NA	NA	0.048	<0.015	0.057
Benzo(b)fluoranthene	15	NA	NA	0.036	<0.0011	0.058
Benzo(ghi)perylene	7000 ⁴	NA	NA	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	39	NA	NA	0.049	<0.011	0.068
Chrysene	25	NA	NA	<0.050	<0.050	0.066
Dibenzo(a,h)anthracene	1.5	NA	NA	<0.020	<0.020	<0.020
Fluoranthene	880	NA	NA	<0.050	<0.050	0.075
Fluorene	1100	NA	NA	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	3.1	NA	NA	0.033	<0.029	0.037
Naphthalene	170	NA	NA	<0.025	<0.025	<0.025
Phenanthrene	170	NA	NA	<0.050	<0.050	0.060
Pyrene	570	NA	NA	<0.050	<0.050	0.088
Bis(2-ethylhexyl)phthalate - USEPA Method 3510C/8270SIM						
Bis(2-ethylhexyl)phthalate	980	NA	NA	<0.33	<0.33	NA
Total Petroleum Hydrocarbons (TPH) USEPA Method 8015B						
TPH - Gasoline Range	1500	NA	NA	NA	NA	<10
TPH - Diesel Range	2300	NA	NA	NA	NA	<10
TPH - High End Hydrocarbon Oils	2300	NA	NA	NA	NA	48

¹RISC Technical Guide - Cleanup levels established by IDEM on January 31, 2006; ²NA = Not Analyzed

³IDEM Remediation Closure Guide - March 22, 2012; ⁴No IDEM screening value exists. Michigan Industrial/Commercial Direct Contact value used.

Table 2 – Groundwater Analytical Results
¹RISC Technical Guide - Cleanup levels established by IDEM on January 31, 2006; ²NA = Not Analyzed; ³IDEM Remediation Closure Guide –

	RISC Industrial Closure Level ¹ (mg/L)	GP-1	GP-2	GP-4	GP-5	GP-6	GP-7	GP-8
Volatile Organic Compounds USEPA Method 8260								
Acetone	92	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Benzene	0.052 ²	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	0.36	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane	0.007 ³	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone (MEK)	61	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.080 ³	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane	0.99	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroform	1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane	0.19 ³	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.031	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	5.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.042	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.0041 ³	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	0.0041 ³	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	0.034	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methyl-tert-butyl ether (MTBE)	0.72	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-pentanone (MIBK)	8.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	0.38	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.055	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Toluene	8.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	29	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.0072	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Xylene, Total	20	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Polynuclear Aromatic Hydrocarbons - USEPA Method 3510C/8270S1M								
Acenaphthene	4.2	NA	NA	NA	<0.010	<0.010	<0.010	<0.010
Acenaphthylene	0.73	NA	NA	NA	<0.010	<0.010	<0.010	<0.010
Anthracene	0.043	NA	NA	NA	<0.005	<0.005	<0.005	<0.005
Benzo(a)anthracene	0.0039	NA	NA	NA	<0.00013	<0.00013	<0.00013	<0.00013
Benzo(a)pyrene	0.00039	NA	NA	NA	<0.0002	<0.0002	<0.0002	<0.0002
Benzo(b)fluoranthene	0.0015	NA	NA	NA	<0.00018	<0.00018	<0.00018	<0.00018
Benzo(ghi)perylene	1.0 ⁴	NA	NA	NA	<0.0004	<0.0004	<0.0004	<0.0004
Benzo(k)fluoranthene	0.0008	NA	NA	NA	<0.00017	<0.00017	<0.00017	<0.00017
Chrysene	0.0016	NA	NA	NA	<0.0015	<0.0015	<0.0015	<0.0015
Dibenzo(a,h)anthracene	0.00039	NA	NA	NA	<0.0003	<0.0003	<0.0003	<0.0003
Fluoranthene	0.21	NA	NA	NA	<0.002	<0.002	<0.002	<0.002
Fluorene	2	NA	NA	NA	<0.002	<0.002	<0.002	<0.002
Indeno(1,2,3-cd)pyrene	0.0003 ³	NA	NA	NA	<0.0003	<0.0003	<0.0003	<0.0003
Naphthalene	2	NA	NA	NA	<0.010	<0.010	<0.010	<0.010
Phenanthrene	0.31	NA	NA	NA	<0.005	<0.005	<0.005	<0.005
Pyrene	0.14	NA	NA	NA	<0.002	<0.002	<0.002	<0.002
Bis(2-ethylhexyl)phthalate - USEPA Method 3510C/8270S1M								
Bis(2-ethylhexyl)phthalate	0.2	NA	NA	NA	<0.005	<0.005	<0.005	NA
Total Petroleum Hydrocarbons (TPH) USEPA Method 8015B								
TPH - Gasoline Range	14	NA	NA	NA	NA	NA	NA	<0.25
TPH - Diesel Range	2.5	NA	NA	NA	NA	NA	NA	<0.25
TPH - High End Hydrocarbon Oils	2.5	NA	NA	NA	NA	NA	NA	<0.25

March 22, 2012; ⁴No IDEM screening value exists. Michigan Non-Residential Drinking Water criteria used.

SUMMARY OF FACILITY RISKS

Human Health Risks

Based on the available information cited above, the former hazardous waste container storage area was approved as closed by IDEM in 1999 and no additional contaminants of concern were found to exceed the IDEM RISC guidance residential default closure levels for soil and groundwater in the 2005 Site investigation. The Site is currently zoned for industrial light manufacturing and assembly use and there are no current anticipated zoning changes planned. However, as no additional contaminants of concern were found to exceed the IDEM RISC guidance residential default closure levels for soil and groundwater, there would be no restrictions to prevent land use changes to other use scenarios.

Ecological Risks

Based on the available information cited above, there is adequate information to conclude that ecological risks are negligible at the Site. The entire Facility is covered by gravel, concrete or asphalt parking and buildings with the exception of a drainage ditch/creek to the north of the operations. The drainage ditch was not found to be impacted by the SWMU 1 area, based upon the sampling conducted as part of closure activities.

SCOPE OF CORRECTIVE ACTION

The intention of corrective measures is to eliminate the threat of exposures by meeting the following objectives:

- Remediating contamination which presents a risk to human health or the environment, or eliminating the pathways of exposure to such contaminants;
- Appropriately managing any residual wastes disposed on-site such that they do not present a risk to human health or the environment, and
- Protecting sensitive ecosystems.

Performance Standards for Corrective Measures

Remedial alternatives must meet three performance standards, which are the main objectives of a corrective action program under the RCRA.

1. Protect human health and the environment;

2. Achieve media cleanup objectives, and
3. Remediate the sources of releases.

CONCLUSION

Based upon the information presented in this document and in the Administrative Record regarding releases and remedial actions performed at this Site to address those releases, EPA has determined that no further action by the federal RCRA corrective action program is necessary at this Site at this time. The site conditions were assessed against the objectives for eliminating threats. EPA believes that the management of the Site has met those objectives. After review of the efforts undertaken at the Site by Flair and confirmed by the sampling conducted by Lucent, EPA believes that the cleanup of the Site was effective and met the three performance standards listed above.

The Facility completed remediation of the waste management areas in 1999. The documentation from the 1994-1999 remediation work demonstrates that the Site has already achieved appropriate risk reduction, prevented the migration of contaminants, and eliminated the threat of exposure, based on the conditions established and confirmed by IDEM in 1999 during the closure of the Former Hazardous Waste Container Storage Area. The former SWMU and other areas investigated do not present concern for human health and the environment under the current conditions. EPA believes the Site has achieved a CA070NO (no further investigation needed), CA400 (remedy decision), CA550-NR (remedy construction complete-no remedy) CA 900 NL (No Controls are Necessary).” EPA reserves the right to change, modify or otherwise rescind this determination based on new information or information not available to EPA at the time of this determination.

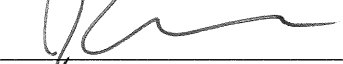
Name	Title	Signature	Date
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Greg Rudloff	CAS 1 Supervisor (Acting)		8/19/14
Karen Peaceman	Associate Regional Counsel		8/18/14
Jose Cisneros	Branch Chief		8/19/14

Figure 1

