U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Tuchman Cleaners - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #14**
Progress PolRep
Tuchman Cleaners
B5ZU
Indianapolis, IN
Latitude: 39.8369420 Longitude: -86.1210940

To:
From: Shelly Lam, On-Scene Coordinator
Date: 7/12/2013
Reporting Period: May 1-July 12, 2013

1. Introduction

1.1 Background

Site Number:	B5ZU	**Contract Number:**	EP-S5-09-05
D.O. Number:	106	**Action Memo Date:**	8/16/2012
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	9/17/2012	**Start Date:**	9/17/2012
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000510530	**RCRIS ID:**	IND982425662
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) incident category: Inactive Production Facility

1.1.2 Site Description
The following sections provide information on the site location, description of threat, and site assessment results.

1.1.2.1 Location
The Tuchman Cleaners site is located at 4401 N. Keystone Avenue in Indianapolis, Marion County, Indiana, 46205. The site is located in an area northeast of downtown Indianapolis that is commercial and residential. Approximately 10,000 people live within one mile of the site. The Fall Creek well field is less than ¼ mile from the site. Fall Creek, a major tributary to the White River, is located approximately 500 feet south of the site. The geographical coordinates for the site are latitude 39.836942 ° north and longitude 86.121094° west.

1.1.2.2 Description of Threat
A release of hazardous substances, pollutants, or contaminants was documented at the site. The U.S. Environmental Protection Agency (EPA) documented the presence of hazardous substances as defined by section 101(14) of CERCLA, including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (DCE), vinyl chloride, chloroform, and 1,1,2,2-tetrachloroethane; and pollutants and contaminants as defined by 101(33) of CERCLA.

Hazardous substances were documented in soil, groundwater, and soil vapor. Possible exposure routes to hazardous substances include dermal contact with contaminated surface and subsurface soil during excavation activities; inhalation of contaminated air that migrated through subsurface soil and groundwater, i.e. vapor intrusion; and ingestion of contaminated drinking water. Potential human receptors include future on-site workers and nearby residents, including children in a day care adjacent to the site.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
At the request of the Indiana Department of Environmental Management (IDEM), EPA performed Site Assessments January 24 – 27, 2011 and April 9-10, 2012. EPA and the Superfund Technical Assessment and Response Team (START) contractor collected seven subsurface soil samples for volatile organic compounds (VOC) and Toxicity Characteristic Leachate Procedure (TCLP) VOC analysis; ten groundwater samples from existing monitoring wells for VOC analysis; and nine soil gas samples, two of which were collected on-site and seven of which were collected off-site in a residential neighborhood about ¼ mile west

of the site.

EPA compared soil results to May 2012 Regional Screening Levels (RSL) for industrial soil. 1,1,2,2-Tetrachloroethane was detected in one sample at a concentration of 11 milligrams per kilogram (mg/kg), above the RSL of 2.8 mg/kg. All samples were below the Resource Conservation Recovery Act (RCRA) criteria for toxicity. Historical soil analytical results documented that PCE was detected in near-surface soil (1 foot below ground surface (bgs)) at a maximum concentration of 2,400 mg/kg.

Groundwater results were compared to Superfund Removal Actions Levels (RAL), which were developed for contaminated drinking water sites. The groundwater at Tuchman is not a drinking water source but could potentially migrate into the drinking water supply in the Fall Creek well field. Six of the ten monitoring wells sampled contained VOCs above the Superfund RALs; these VOCs included cis-1,2-DCE, PCE, TCE, and vinyl chloride. PCE was detected at a maximum concentration of 49,000 micrograms per liter (ug/L). Historical results indicated that PCE was detected in groundwater at a maximum concentration of 135,000 ug/L in groundwater monitoring well MW-2i. TCE was detected at a maximum concentration of 2,960 ug/L.

Soil gas data was collected at the site and in a residential area to the west. The results were compared to soil gas screening levels for a 10^{-4} cancer risk as established in EPA's Vapor Intrusion Screening Level (VISL) calculator, which were then converted from units of micrograms per cubic meter (ug/m^3) to parts per billion by volume (ppbv) using standard atmospheric temperature and pressure and the molecular weight of each chemical constituent. Seven of the nine soil gas samples contained VOCs above the VISL screening levels; these VOCs included chloroform, propylbenzene, PCE, and TCE. PCE was detected at a maximum concentration of 36,000 ppbv.

EPA conducted an extent-of-contamination survey September 17 - 19, 2012. EPA divided the site into 25-foot grids and collected soil samples from each grid to determine the extent-of-contamination in soil. Analytical results indicated that three grids exceeded the criteria for hazardous waste. Results in those grids ranged from 18,000 to 2,300,000 ug/kg for total PCE. EPA used a conservative approach in waste disposal and managed grids adjoining hazardous grids as hazardous waste.

EPA's "contained-in" policy states that environmental media contaminated with a hazardous waste must be managed as if they were hazardous wastes until they no longer contain the listed waste, no longer exhibit a characteristic, or are delisted. In accordance with the contained-in policy, a determination as to whether or not "listed" waste is contained-in soil or groundwater may be made by authorized states based on whether constituents from listed waste are below health-based levels. IDEM has determined that contamination levels specified in the *Risk Integrated System of Closure (RISC)* system represent appropriate health-based levels for determining if soil or groundwater contain "listed" hazardous waste. Specifically, soil concentrations must be below the toxicity characteristic and RISC Industrial Soil Direct Level. PCE-contaminated soil is considered hazardous waste if it is above 0.7 milligrams per liter (mg/L) for TCLP PCE or 16,000 micrograms per kilogram (ug/kg) for total PCE. PCE-contaminated soil between the Residential Soil Direct Level and Industrial Soil Direct Level may be managed as non-hazardous waste; this corresponds to 9,900 to 16,000 ug/kg for total PCE. Soil below 9,900 ug/kg for total PCE is below the Residential Soil Direct Level and may be left in place.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Tuchman Cleaners operated as a dry cleaner at the Keystone facility beginning in 1953 until 2008 when the parent company declared bankruptcy. Historical operations at the site caused releases of dry cleaning solvents, primarily PCE, to soil and groundwater.

Prior to the construction of the dry cleaning facility, the property was an empty lot. In January 2012, the City of Indianapolis completed demolition of the on-site building to assist with EPA's time-critical removal.

2.1.2 Response Actions to Date

Refer to Pollution Reports (PolRep) 1-13 for previous actions.

During the reporting period, EPA accomplished the following:

- Conducted pre-installation pilot tests and/or system scoping at seven residences;
- Installed vapor mitigation systems at three residences;
- Modified five vapor mitigation systems where post-installation proficiency sampling indicated that indoor air concentrations were still above screening levels;
- Conducted initial vapor intrusion sampling at two properties for a total of 40 properties sampled; and
- Conducted follow-up sampling at 18 properties.

EPA has installed vapor mitigation systems at 19 residential properties. Maximum concentrations for chemicals above screening levels in indoor air included 1,2,4-trimethylbenzene at 150 ppbv; chloroform at 5.8 ppbv; xylenes at 360 ppbv; PCE at 22 ppbv; and TCE at 1.3 ppbv. Residential screening levels for indoor air are 1.5 ppbv for 1,2,4-trimethylbenzene; 0.9 ppbv for chloroform; 50 ppbv for xylenes; 6 ppbv for PCE; and 1.3 ppbv for TCE.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

EPA has issued General Notice Letters and/or 104(e) information requests to 11 different parties. Based on the information received, none of the parties is either liable or have the financial resources to conduct the work. Thus, EPA did not issue an order because the former owner is in Chapter 11 receivership.

2.1.4 Progress Metrics

The waste stream metrics are current for waste disposed through November 29, 2012.

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal Facility*
NA3077, Hazardous Waste Solid, NOS, (F002), 9, PGIII	Soil	1777.76 tons	Various	None	Wayne Disposal
NA3077, Hazardous Waste Solid, NOS, (F002), 9, PGIII	Soil	773.26 tons	Various	Chemical oxidation	Michigan Disposal
NA3082 Hazardous Waste Liquid, NOS, PGIII	Liquid	3250 pounds	010719993JJK	None	EQ Detroit
Non-hazardous, non-regulated liquid	Liquid	400 pounds	010719993JJK	None	EQ Detroit

R5 Priorities Summary		
This is an Integrated River Assessment.	Miles of river systems cleaned and/or restored	NA
	Cubic yards of contaminated sediments removed and/or capped	NA
	Gallons of oil/water recovered	NA
	Acres of soil/sediment cleaned up in floodplains and riverbanks	NA
Stand Alone Assessment	Acres Protected	2.2
	Number of contaminated residential yards cleaned up	0
	Human Health Exposures Avoided	10,000
	Number of workers on site	8
Contaminant(s) of Concern		
Contaminant(s) of Concern	PCE, TCE, cis-1,2-DCE, vinyl chloride, chloroform, 1,1,2,2-tetrachloroethane	

Green Initiatives

EPA and its contractors are practicing the following Green Initiatives:

- Using recycled paper products;
- Producing electronic 1900-55's instead of printing;
- Double-sided printing;
- Utilizing a water cooler instead of bottled water;
- Using electricity from the grid instead of a generator;
- Using rechargeable batteries;
- Established a no-idling policy for vehicles; and
- Recycling paper, cardboard, plastic, glass, aluminum, ink, and batteries.

2.2 Planning Section

2.2.1 Anticipated Activities

EPA is conducting the following response actions to mitigate threats posed by the presence of hazardous substances at the Tuchman Cleaners Site: develop and implement a Site Health and Safety Plan and a Site Security Plan; remove contaminated soil that poses a direct contact threat; backfill excavated areas with clean impermeable fill; conduct vapor intrusion assessment at residential properties and an adjacent day care; perform vapor intrusion mitigation at properties where relevant indoor air action levels are exceeded in accordance with current EPA guidance; and consolidate and package hazardous substances, pollutants and contaminants for transportation and off-site disposal in accordance with the EPA Off-Site Rule, 40 CFR § 300.440.

2.2.1.1 Planned Response Activities

During the next reporting period, EPA will continue post-mitigation follow-up sampling at homes. Additionally, EPA will upgrade mitigation systems that do not pass post-installation performance sampling.

2.2.1.2 Next Steps

EPA will refer the site to IDEM and EPA's Remedial Program when removal actions are complete.

2.2.2 Issues

None

2.3 Logistics Section

The Emergency and Rapid Response Services (ERRS) contractor provided logistical support.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety

On September 17, 2012, the Health and Safety Plan (HASP) was finalized and signed by all site personnel. All personnel on-site are attending daily health and safety briefings

2.5.2 Liaison Officer

Not applicable (NA)

2.5.3 Information Officer

During previous reporting periods, EPA sent fact sheets and access agreements to nearby residents and businesses to inform them of work at the site and to request access for vapor intrusion sampling. In addition, EPA conducted door-to-door engagement with community residents. EPA hosted a public meeting on October 3, 2012, and conducted radio and television interviews.

3. Participating Entities

3.1 Unified Command

NA

3.2 Cooperating Agencies

ATSDR
IDEM
Marion County Public Health Department
City of Indianapolis
Citizens Energy

4. Personnel On Site

The following personnel were on-site during the reporting period.

Agency	Position	# Personnel
EPA	OSC	1
ERRS	Foreman	1
	VI Subcontractor	5
START	On-Site monitoring and documentation support	1

5. Definition of Terms

ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DCE	Dichloroethene
EPA	Environmental Protection Agency
ERRS	Emergency and Rapid Response Services
HASP	Health and Safety Plan
IDEM	Indiana Department of Environmental Management
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NA	Not Applicable
PCE	Tetrachloroethene
PolRep	Pollution Report
ppbv	parts per billion by volume
PRP	Potentially Responsible Party
RAL	Removal Action Level
RCRA	Resource Conservation Recovery Act
RISC	Risk Integrated System of Closure
RSL	Regional Screening Levels
START	Superfund Technical Assessment and Response Team
TCE	Trichloroethene
TCLP	Toxicity Characteristic Leachate Procedure
ug/kg	micrograms per kilogram
ug/L	micrograms per liter
ug/m^3	micrograms per cubic meter
VISL	Vapor Instrusion Screening Level
VOC	Volatile Organic Compounds

6. Additional sources of information

6.1 Internet location of additional information/report

For additional information, refer to www.epaosc.org/tuchman or http://www.epa.gov/region5/cleanup/tuchman/index.html.

6.2 Reporting Schedule

The next PolRep will be submitted on or about August 31, 2013.

7. Situational Reference Materials

NA