



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

FINAL DECISION AND RESPONSE TO COMMENTS

SAFETY KLEEN SYSTEMS INC.

SILVER SPRING, MARYLAND

EPA ID NO. MDD000737395

Prepared by
Office of Remediation
Land and Chemicals Division
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Table of Contents

Section 1: Introduction	1
Section 2: Facility Background	2
Section 3: Summary of Environmental Investigations	5
Section 4: Corrective Action Objectives	13
Section 5: Final Remedy.....	15
Section 6: Evaluation of Final Remedy	17
Section 7: Financial Assurance.....	21
Section 8: Index to Administrative Record	22

List of Acronyms

AR	Administrative Record
COC	Contaminant of Concern
COMAR	Code of Maryland Regulations
EI	Environmental Indicator
EPA	Environmental Protection Agency
FDRTC	Final Decision Response to Comments
GPRA	Government Performance and Results Act
IC	Institutional Control
MCL	Maximum Contaminant Level
MDE	Maryland Department of the Environment
MIP	Membrane Interface Probe
MTBE	Methyl Tert-Butyl Ether
RCRA	Resource Conservation and Recovery Act
SB	Statement of Basis
SL	Screening Level
SSL	Soil Screening Level
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
VOC	Volatile Organic Compound

Section 1: Introduction

The United States Environmental Protection Agency (EPA) is issuing this Final Decision and Response to Comments (FDRTC or Final Decision) in connection with the Safety Kleen Facility located in Silver Spring, MD (Facility). The Final Decision is issued pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq.

On May 30, 2014, EPA issued a Statement of Basis (SB) in which EPA proposed a remedy for the Facility. EPA held a thirty (30)-day public comment period which began on May 30, 2014 and ended on June 29, 2014. The only comments EPA received during the public comment period were submitted by Safety-Kleen Systems, Incorporated of Plano, Texas (Safety-Kleen) and the owner, BDC Spectrum LLC.

EPA has determined that it is not necessary to make significant modifications to the final remedy as proposed in the SB. Based on comments received during the public comment period EPA is, however, making minor modifications to the final remedy as described in more detail in Attachment A, EPA Response to Comments. This Final Decision and the remedy selected herein incorporate those minor modifications and clarifications.

Section 2: Facility Background

2.1 Introduction

The Facility is currently owned by BDC Spectrum LLC. From approximately 1982 until April 1996, Safety-Kleen operated the Facility as an accumulation point for spent solvents and other fluids generated by Safety-Kleen customers. Safety Kleen occupied two warehouses in a building with other tenants in adjacent offices. Safety Kleen occupied the 12158 and 12164 Tech Road tenant spaces. Currently the former warehouses are rented to a Credit Union and a flower shop.

The Facility is situated on 10 acres with a parking lot and an area where two underground storage tanks (USTs or tanks), a return and fill station area, and associated piping trench had been located (UST Area). The Facility is situated in an operating industrial and commercial park. Neighboring properties are involved in various forms of industrial and commercial activities.

2.2 Areas of Investigation

2.2.1 UST Area

Previously, two 12,000-gallon USTs were used at the Facility. The USTs were located in a tank pit on the northeast side of the Facility building. One UST was used to store spent parts washer solvents and the other UST stored product, a mineral spirits based solvent. Two loading units, called drum washers, were used to transfer the solvents to the USTs. There were also two areas designated for container storage. The UST used to store spent parts washer solvents was under a Controlled Hazardous Substances permit issued by MDE.

The USTs were removed in April 1996 when Safety Kleen ceased operations. During the removal activities, soil was excavated from the tank pit and confirmatory soil samples were taken from the walls and floor of the excavation and along the trench containing the pipes running from the return and fill station to the USTs. The results from these samples detected total petroleum hydrocarbons (TPH) as mineral spirits and a number of volatile organic compounds (VOCs) in the soil. Groundwater monitoring at this Facility has been on-going since July 1989 and has historically shown detections of TPH, benzene, toluene, ethylbenzene, xylene, chlorinated compounds such as perchloroethylene (PCE) and other VOCs.

Results for TPH sample analysis at this Facility represent the total mass of hydrocarbons present in the sample without identifying individual compounds. EPA has published screening levels (SLs) for individual fractions of TPH with similar physical

and chemical properties; however, these SLs for TPH fractions cannot be compared to results for the aggregate total concentrations. While no comparison of reported TPH concentrations to EPA SLs can be made, note that MDE has a groundwater cleanup standard for TPH of 0.1 mg/L and a soil cleanup standard for TPH of 100 parts per million (ppm) in the Facility Post Closure Permit.

Safety-Kleen has operated a Soil Vapor Extraction (SVE) system at the Facility from August 1993 until sometime in 2011. It was located just south of the UST Area. The Maryland Department of the Environment (MDE) issued a Post Closure Permit for the area in February 2001, which includes remediation goals and requirements for the cleanup of TPH, VOCs, organic compounds and metals in the groundwater and soil. The contaminant concentrations in groundwater have shown an overall decreasing trend over the past five years, although there have been some fluctuations from the overall trend. Trend charts for perchloroethylene (PCE) and TPH in groundwater are located in the Safety Kleen Semiannual Progress Report July 1 – December 31, 2013. The concentrations of a number of contaminants have already dropped, and have remained, below the groundwater protection standards specified by the Post Closure Permit. However, TPH concentrations, although significantly reduced, still remain above the groundwater protection standards in the Post Closure Permit.

The SVE system recovery rate had diminished to zero asymptotically. An attempt was made to recover additional contaminants by operating the system in a pulsing mode by turning it off for a period of time and then on again. However, there were no significant additional recoveries. In 2011, the SVE motor burned out and the SVE has not been operating since with approval from MDE.

MDE is currently reviewing a request from Safety-Kleen to terminate the Facility's Post Closure Permit.

2.2.2 Safety Kleen Building and Parking Lot

The Facility building contained two solvent storage areas. Each area was located in the warehouse part of the building, one of which also housed the Facility's offices and is referred to as the east container storage area. The second area is located in the other Facility warehouse and is called the west container storage area. These areas consisted of a concrete floor and curbing. Each container storage area included a spill containment trench at the entrance or entrances of the area (the east container storage area has one entrance and containment trench, and the west container storage area has two entrances and containment trenches).

Safety-Kleen also stored PCE product for distribution to local dry cleaners and collected and temporarily stored spent PCE from local customers. The PCE operations

included four 550-gallon product storage tanks (which were located inside a concrete secondary containment area in the Facility building), and drums of immersion cleaner and waste PCE that were stored in a concrete secondary containment area prior to being shipped off-site for recycling and/or disposal. In addition, PCE was spilled in the parking lot area from loading and unloading of solvents. MDE inspection reports also include details of leaking containers and problems with secondary containment for the PCE tanks in the building.

The Facility is impacted by PCE contamination in groundwater from the neighboring former International Fabricare Institute (IFI) facility to the north. The PCE plume associated with the IFI facility covers approximately 30 acres and impacts groundwater to the southeast of the Facility.

Section 3: Summary of Environmental Investigations

3.1 Environmental Investigations

For all environmental investigations, groundwater concentrations were compared to federal Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 CFR Part 141, or EPA Region III Screening Levels (SL) for tap water for chemicals for which there are no applicable MCLs. Soil concentrations were screened against EPA SLs for residential soil and industrial soil. EPA also has Soil Screening Levels (SSLs) to evaluate the potential for transfer of contamination from soil to groundwater and soil concentrations were also screened against these SSLs.

3.1.1 UST Area

Closure Report and Certification, May 1996

April 1996 - the two USTs were removed at the Facility. Elevated TPH concentrations were observed at each of the April 1996 soil UST excavation soils samples, at concentrations ranging from 840 milligram per kilogram (mg/kg) along the south wall, to 11,000 mg/kg along the west wall of the tank pit. Low concentrations of nine volatile organic compounds (VOC), which included PCE, were also detected above the laboratory detection limit in the April 1996 soil UST excavation soil samples. The VOC concentrations were below EPA Region 3 SLs for residential soils.

Tetrachloroethene Investigation Report, July 2, 2008.

In April 2008, Safety Kleen advanced two soil borings outside of the backfill material, along the north and former UST excavation. The objective of the soil sampling was to confirm residual soil quality, following operation of the SVE system at the Facility. TPH concentrations in the former tank basin area were non-detect. Two VOCs (1,2-dichlorobenzene at 0.0099 mg/kg and 1,4-dichlorobenzene at 0.034 mg/kg) were detected in one of the April 2008 samples, but the concentrations were below the applicable SLs for residential soil. These results indicate that the SVE system has effectively reduced soil impacts in the source zone.

3.1.2 Safety Kleen Warehouse and Parking Lot

December 18, 2008 Report for MDE

MDE performed a sub-slab vapor and indoor air sampling event, Membrane Interface Probe (MIP) survey, and soil boring program at the Facility. The findings of this

work included the following:

- Soil gas beneath the Facility building has been impacted by subsurface PCE contamination. The highest sub-slab PCE vapor concentration (1,190 micrograms per cubic meter (ug/m³)) was detected in a sample collected from beneath Safety-Kleen's former 12158 Tech Road tenant space.
- The highest Electron Capture Detector (ECD) reading was recorded in the MIP boring (MIP-12) advanced closest to the former location of the PCE storage tanks in the 12158 Tech Road tenant space. MIP-12 is surrounded by wells MW-6, 7, 9, 10 and 11.
- The highest PCE groundwater concentration (91 micrograms per liter (ug/L)) was detected in the groundwater sample obtained from SB-12, which is also the area with the highest ECD response.
- PCE was detected (0.032 mg/kg) in soil in SB-04 (34'), but not in any of the other soil samples and is below the SL residential soil for PCE (22 mg/kg).
- Subsurface PCE contamination exists in the area of 12158 Tech Road tenant space. The sub-slab vapor sample collected in this space (VMP-01) at 12158 Tech Road exhibited the highest PCE vapor concentration detected at the Facility. The second highest ECD reading recorded at the Facility occurred in MIP-01 installed next to the 12158 Tech Road tenant space. A confirmatory groundwater sample (SB-01(20')) collected at the same location contained PCE at a concentration of 6.3 ug/L (the MCL for PCE is 5 ug/L).
- MIP, soil, and groundwater data collected for this investigation did not identify evidence of a PCE source area in the open area between the southeast side of the Facility building and Tech Road.
- PCE in groundwater was detected in SB-01 (20'), SB-04 (38'), and SB-12 (30') at concentrations of 6.3 ug/L, 11 ug/L, and 91 ug/L, respectively (the MCL for PCE is 5 ug/L).

3.1.3 Facility Wide Conditions

Soil Gas Survey Results and Proposed Soil Boring locations, June 1991

In April 1991, Safety-Kleen conducted a soil gas survey, which revealed the presence of a petroleum- based solvent, tetrachloroethene, 1,1,1-trichloroethane and trichloroethene at the Facility.

Elevated contaminants in the soil gas were centered near the dispenser, at the

southeast parking lot, and between the end of the tank pit and Tech Road. No vapors of PCE were detected at the grassy strip between the end of the parking lot and Tech Road on the South side of the Facility.

Tetrachloroethene Investigation Report, July 2, 2008

In order to dismiss the Facility as the source of tetrachloroethene (PCE) in monitoring well WSSC MW-4 (south and down gradient of the Facility), the Facility voluntarily agreed to conduct additional assessment and evaluation activities, specifically focused on determining the potential impact (if any) of the Facility's historic PCE operations. Three specific and targeted lines of evidence were considered as part of the additional evaluation, including:

1. Review of historic documents and reports pertaining to the historic on-site PCE operations;
2. Additional soil assessment in areas of potential PCE spills; and
3. Supplemental groundwater assessment immediately down-gradient of the former PCE operations, targeted in the same water-bearing zone as WSSC well MW-4.

A total of 18 shallow borings (SB-1 through SB-18) were advanced between the former Facility building and Tech Road, in the direction of WSSC well MW-4. PCE was not detected in 12 of the 18 submitted soil samples, and the maximum PCE detection was 83 micrograms per kilogram (ug/kg) or .083 mg/kg. This concentration is lower than the SL for residential soil of 22 mg/kg.

A supplemental groundwater investigation was completed to determine if the Facility's historic PCE operations and above ground PCE storage areas could have been the source of elevated PCE impacts in Washington Suburban Sanitation Commission (WSSC) well MW-4. Three new wells (MW-9, MW-10, and MW-11) were advanced near the Facility building and completed within the same screened interval as WSSC MW-4 (30-40 feet (ft) below ground surface (bgs)). Additionally, MDE had installed a well (TR-2) in the 30-40 ft bgs interval immediately down-gradient (east) of the Facility building. The maximum detected PCE concentration in the groundwater samples from the three new Facility wells was 390 ug/L, which is over 23 times less than the PCE concentration (9,300 ug/L) observed in WSSC well MW-4 in December 2007. The results of these additional groundwater samples, and the Facility historical groundwater sampling results, provide further verification that the Facility's historic PCE operations are not the source of elevated PCE impacts in WSSC well MW-4.

Other well concentrations above the MCL for PCE were MW-9 at 140 ug/L and MW-10 at 350 ug/L. These wells were adjacent to the Facility building and downgradient. Figure 9 of the Tetrachloroethene Investigation Report also had

monitoring well results shown detecting PCE. The upgradient and background well MW-5 had concentrations of PCE at 77 ug/L. MW-4 which is east of the Facility and near Tech Road had concentrations of 76 ug/L. Wells in the parking lot, MW-6 and 7, had values of 240 ug/L and 16 ug/L, respectively. MW-8 which is east of MW-4 and offsite had a value of 28 ug/L.

Semiannual Progress Report (July - December 2012) December 18, 2012

Sampling results from 2012 show MW-4 thru 8 having VOCs above their respective MCLs. The most common VOC detected was PCE (MCL of 5 ug/L). MW-4 had 68 ug/L PCE. MW-5 had 46 ug/L PCE. MW-6 had 220 ug/L PCE. MW-7 had 5.2 ug/L PCE. MW-8 had 330 ug/L PCE. The other VOCs above their applicable MCLs were as follows: MW-7 had 99 ug/L of cis-1,2-dichloroethene (MCL of 70 ug/L), 8.2 ug/l of trichloroethene (MCL of 5 ug/L), and 31 ug/l of vinyl chloride (MCL of 2 ug/L). Semi Volatile Organic Compounds (SVOCs) and metals were not detected above their respective MCLs.

Semiannual Progress Report (January - June 2013), June 13, 2013

PCE concentrations in five wells (MW-4 at 56 ug/l, MW-5 at 56 ug/l, MW-6 at 200 ug/l, MW-7 at 8.6 ug/l and MW-8 at 350 ug/l) were greater than the MCL of 5 ug/L. PCE concentrations in these wells have been stable or decreasing with the marked exception of off-site well MW-8, which has had increasing PCE concentrations over time.

Groundwater Monitoring Event, October 29, 2013

Safety-Kleen completed installation of two new up-gradient wells, 13 and 14, as well as piezometers PZ-1 and 2 in October 2013. The new wells and existing wells were sampled in October 2013 for PCE. The following table shows the results:

Well ID	PCE
	ug/L
Shallow Overburden Wells	
MW-1	ND(5)
MW-2	ND(5)
MW-3	ND(5)
MW-4	76
MW-5	93
MW-6	170

MW-7	8.4
Off-site, Side Gradient	
MW-8	300
Deep Overburden Zone Wells	
MW-9	170
MW-10	260
MW-11	210
Up-Gradient, On-Site	
MW-13	6.4
MW-14	24
Up-gradient, west side of building	
PZ-2	55
PZ-1	ND(5)
MCL (ug/L)	5

ND (5)—not detected with a quantitation limit of 5 ug/L

The data establish that there is an upgradient off-site source of PCE from IFI as shown by the PCE concentrations in groundwater at wells MW-13 and MW-14. The PCE in these wells ranged from 6.4 to 24 ug/L of PCE. To evaluate the upgradient and downgradient PCE concentrations, EPA will compare PCE concentrations in the groundwater with a calculated background concentration after each sampling event from wells MW-13 and MW-14 according to the Groundwater Monitoring Plan, which may be amended with EPA approval.

Indoor Air and Sub Slab Characterization Report November 2013

The consulting firm GES was retained by BDC Spectrum LLC (Spectrum), the owners of the Facility, to perform indoor air (IA) and sub-slab vapor (SSV) sampling within the building located at 12144-12164 Tech Road (Safety Kleen occupied 12158 and 12164 Tech Road tenant spaces) in Silver Spring, MD. The building currently has seven tenants. The objective of the sampling was to characterize and delineate potential contaminant vapor sources (PCE, trichloroethylene, dichloroethylene and vinyl chloride) beneath the building foundation at the Facility while also assessing the indoor air quality for potential contaminants and VOCs.

Spectrum installed 13 vapor monitoring points (VMPs). The conclusions reached were:

- PCE was detected above the method detection limit in 12 of 13 sampled indoor air locations at all seven tenant space locations, but none exceeded the industrial EPA SL (47 $\mu\text{g}/\text{m}^3$).
- The highest PCE concentration was 38 $\mu\text{g}/\text{m}^3$ (sample IA-4R at 12158 Tech Rd). PCE in indoor air at the building reduces from this highest concentration in successive sample locations moving both northwest and southeast from highest concentration location.
- The indoor air concentrations of trichloroethene (TCE) occurring at VMP-12 (210 $\mu\text{g}/\text{m}^3$) and VMP-14 (240 $\mu\text{g}/\text{m}^3$) tenant space exceed the EPA industrial SL of 3 $\mu\text{g}/\text{m}^3$ for indoor air. The occurrence of TCE within the indoor air space reduces in successive tenant spaces moving southeast from the dry cleaner location.
- Benzene was detected above the EPA industrial SL of 1.6 $\mu\text{g}/\text{m}^3$ for indoor air at several tenant spaces. Benzene was also detected in the two outdoor air samples collected for this investigation which may contribute to the indoor presence of this constituent.
- Benzene, TCE and 1,2-dichloroethane concentrations were generally elevated in the IA samples but were low-level to non-detect in the SSV samples at corresponding paired locations. This indicates that possible sources of these constituents exist above-grade as opposed to constituents sourced from impacted soil or groundwater.
- The highest concentration of PCE was measured in sub-slab vapor (SSV) in sample VMP-4R (24,000 $\mu\text{g}/\text{m}^3$) near the center of the Facility building.
- As seen with PCE indoor air distribution, peak PCE concentrations in SSV samples diminish in both the northwest and southeast directions, with the exception of SSV sample VMP-13 which revealed a PCE concentration of 210 $\mu\text{g}/\text{m}^3$.
- Comparison of recent sub-slab PCE concentrations (24,000 $\mu\text{g}/\text{m}^3$) with values obtained from corresponding tests collected below the tenant space in 2008

(1,190 µg/m³) indicate that PCE vapor continues to exist beneath the Phase IB building.

- During the 2013 IA / SS Investigation, possible PCE preferential vapor flow along an existing gas utility entering the Facility from Tech Road was evaluated at the IA-9 / VMP-9 utility room location. While detectable, the sub-slab PCE concentration noted beneath the utility room was three orders of magnitude lower than the peak sub-slab concentration sampled found below the former Safety Kleen tenant space (12158 Tech Road).
- A summary of these EPA industrial SL exceedances in IA is presented below:

Benzene (EPA industrial SL for IA= 1.6 µg/m³)

- IA-5 at 3.0 µg/m³
- IA-11 at 1.7 µg/m³
- IA-12 at 4.4 µg/m³

1,2,4-Trimethylbenzene (EPA industrial SL for IA = 31 µg/m³)

- IA-12 at 45 µg/m³

1,2-Dichloroethane (EPA industrial SL for IA = 0.47 µg/m³)

- IA-4R at 16 µg/m³
- IA-5 at 13 µg/m³
- IA-6 at 1.6 µg/m³
- IA-7 at 1.4 µg/m³
- IA-8 at 1.4 µg/m³
- IA-9 at 0.81 µg/m³
- IA-11 at 3.8 µg/m³
- IA-12 at 1.6 µg/m³
- IA-15 at 0.45 µg/m³

Trichloroethene (TCE) (EPA industrial SL for IA = 3.0 µg/m³)

- IA-13 at 210 µg/m³
- IA-14 at 240 µg/m³

3.2 Environmental Indicators

Under the Government Performance and Results Act (GPRA), EPA has set national goals to address RCRA corrective action facilities. Under GPRA, EPA evaluates two key environmental clean-up indicators for each facility: (1) Current Human Exposures Under Control and the facility met this indicator on May 22, 2002, and (2)

Migration of Contaminated Groundwater Under Control and the facility met this indicator on February 5, 2003. The environmental indicator determinations are available at <http://www.epa.gov/reg3wcmd/ca/md.htm>.

Section 4: Corrective Action Objectives

EPA's Corrective Action Objectives for the specific environmental media at the Facility are the following:

1. Soils

EPA has determined that EPA's screening levels for residential soils for direct contact with soils are protective of human health and the environment for individual contaminants.

2. Groundwater

EPA expects final remedies to return usable groundwater to its maximum beneficial use within a timeframe that is reasonable given the particular circumstances of the project. For facilities associated with aquifers that are either currently used for water supply or have the potential to be used for water supply, EPA will require the groundwater be remediated to National Primary Drinking Water Standard Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 CFR Part 141. However, data establish that there is an upgradient off-site source of PCE at the Facility. Therefore, EPA's Corrective Action Objectives for Facility groundwater is to restore the groundwater to a calculated background level based on groundwater monitoring data and to control exposure to the hazardous constituents remaining in the groundwater by requiring the continued implementation of the groundwater monitoring program, the installation of vapor intrusion control systems where necessary, and compliance with and maintenance of groundwater use restrictions.

Section 5: Final Remedy

A. Soils

EPA has made a Corrective Action Complete without Controls determination for Facility soils because based on the available information, there are currently no unacceptable risks to human health and the environment from Facility soils for the present and anticipated use of Facility property including residential use.

B. Groundwater

Monitoring at the Facility has shown that the extent of contamination in groundwater attributable to the Facility is not increasing and concentrations of those contaminants are declining over time. Therefore, the final remedy for groundwater consists of natural attenuation with continued monitoring until background concentrations are met, and compliance with and maintenance of groundwater use restrictions, to be implemented through institutional controls, at the Facility to prevent exposure to contaminants while concentrations remain above drinking water standards. If performance monitoring indicates that the current extent of contamination in groundwater begins to expand or concentrations in groundwater begin to increase, EPA may require additional corrective actions.

These restrictions will be implemented through an enforceable mechanism which shall consist of an order, environmental covenant and/or regulations and local ordinances, such as the State of Maryland Well Construction Regulations, Article Title 9, Subtitle 13, Annotated Code of Maryland; Code of Maryland Regulation (COMAR), Title 26, Subtitle 4, Chapter 4, COMAR 26.04.04. If an environmental covenant is implemented as part of the final remedy, it will be recorded in the chain of title for the Facility property and, once recorded, will be enforceable against future land owners.

EPA's final remedy includes the following groundwater use restrictions:

1. Groundwater at the Facility shall not be used for any purpose other than the operation, maintenance, and monitoring activities required by MDE and/or EPA, unless it is demonstrated to EPA, in consultation with MDE, that such use will not pose a threat to human health or the environment or adversely affect or interfere with the final remedy, and EPA, in consultation with MDE, provides prior written approval for such use;
2. The Facility shall not be used in a way that will adversely affect or interfere with the integrity and protectiveness of the final remedy;

3. No new wells shall be installed on Facility property unless it is demonstrated to EPA, in consultation with MDE, that such wells are necessary to implement the final remedy, and EPA provides prior written approval to install such wells;
4. A vapor intrusion control system, the design of which shall be approved in advance by EPA, shall be installed in each current and new structure constructed at the facility unless it is demonstrated to EPA that vapor intrusion does not pose a threat to human health and EPA provides prior written approval that no vapor intrusion control system is needed;
5. Compliance with the EPA-approved groundwater monitoring program.
6. The then current owner and/or operator shall submit an annual written certification as part of the semiannual reports to EPA documenting; (1) an evaluation of the effectiveness of the remedy reducing contaminant concentrations and restoring groundwater to MCLs or background concentrations and (2) that the use restrictions are in place and effective;
7. Within one month after any of the following events, the then current owner and/or operator of the Facility shall submit to EPA written documentation describing the following: observed noncompliance with the groundwater use restrictions; transfer of the Facility; changes in use of the Facility; or filing of applications for building permits for the Facility and any proposals for any site work, if such building or proposed site work will affect the contamination on the Facility.

C. Additional Requirements

In addition, the Facility shall provide EPA with a coordinate survey as well as a metes and bounds survey, of the Facility boundary. Mapping the extent of the land use restrictions will allow for presentation in a publicly accessible mapping program such as Google Earth or Google Maps.

Section 6: Evaluation of Final Remedy

This section provides a description of the criteria EPA used to evaluate the final remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three decision threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

Threshold Criteria	Evaluation
1) Protect human health and the environment	<p>With respect to groundwater, while low levels of contaminants remain in the groundwater beneath the Facility, the contaminants are contained in the aquifer and decreasing through attenuation at the Facility as shown by groundwater monitoring. In addition, groundwater monitoring will continue until groundwater clean-up standards are met. Groundwater monitoring will also track background levels of PCE entering the site. The existing State of Maryland well construction regulations will aid in minimizing exposure to contaminated groundwater by restricting the installation of wells in contaminated water sources. Montgomery County, Maryland does not allow new drinking water wells to be installed in Silver Spring; potable water is provided to homes by Washington Suburban Sanitation Commission. With respect to future uses, the final remedy requires groundwater use restrictions to minimize the potential for human exposure to contamination and protect the integrity of the remedy. Results from indoor air and sub slab vapor monitoring show that contaminants are above or near industrial EPA SLs. Vapor intrusion controls for existing and new construction shall be installed where EPA determines they are necessary.</p>
2) Achieve media cleanup objectives	<p>The Facility has achieved the EPA's residential SLs for soils. The groundwater plume appears to be stable (not migrating); although contaminants are above MCLs, they are either stable or declining over time. In addition, groundwater monitoring will continue until groundwater clean-up standards are met. There is upgradient background PCE migrating onto the Facility. Background levels of PCE will be taken into account</p>

	<p>to determine a clean up standard. The Facility meets the EPA risk guidelines for human health and the environment. The EPA final remedy requires the implementation and maintenance of institutional controls to ensure that groundwater beneath Facility property is not used for any purpose except to conduct the operation, maintenance, and monitoring activities required by MDE and EPA. EPA will require vapor intrusion controls for current and future development at the Facility if EPA determines it is necessary.</p>
<p>3) Remediating the Source of Releases</p>	<p>In all final remedies, EPA seeks to eliminate or reduce further releases of hazardous wastes and hazardous constituents that may pose a threat to human health and the environment. As shown in the Request for Permit Termination Report, the Facility met this objective. Contaminants are declining through attenuation. There are no remaining large, discrete sources of waste from which constituents would be released to the environment. Groundwater is not used for potable purposes at the Facility or at neighboring facilities. In addition, groundwater monitoring will continue until groundwater clean-up standards are met through attenuation. The existing State of Maryland well construction regulations will aid in minimizing exposure to contaminated groundwater by restricting the installation of wells in contaminated water sources. Montgomery County, Maryland does not allow new drinking water wells to be installed in Silver Springs as potable water is provided to homes by Washington Suburban Sanitation Commission. Therefore, EPA has determined that this criterion has been met.</p>

Section 6: Evaluation of Final Remedy (continued)

Balancing Criteria	Evaluation
4) Long-term effectiveness	Groundwater is not used on the Facility for drinking water, and no downgradient users of off-site groundwater exist. Therefore, the long term effectiveness of the remedy for the Facility will be maintained by the continuation of the groundwater monitoring program, and implementation of land use controls (institutional controls).
5) Reduction of toxicity, mobility, or volume of the Hazardous Constituents	The reduction of toxicity, mobility and volume of hazardous constituents will continue by attenuation at the Facility. Reduction has already been achieved, as demonstrated by the data from the groundwater monitoring. In addition, the groundwater monitoring program already in place will continue.
6) Short-term effectiveness	EPA's final remedy does not involve any activities, such as construction or excavation that would pose short-term risks to workers, residents, and the environment. In addition, EPA anticipates that the groundwater use restrictions will be fully implemented shortly after the issuance of the Final Decision and Response to Comments. The groundwater monitoring program is already in place and will continue in accordance with the approved Groundwater Monitoring Plan.
7) Implementability	EPA's final decision is readily implementable. All of the engineering components of final remedy, namely, the groundwater monitoring program is already in place and operational. EPA does not anticipate any regulatory constraints in implementing its final remedy. EPA proposes to implement the institutional controls through an enforceable mechanism such as an Environmental Covenant
8) Cost	EPA's final decision is cost effective. The costs associated with this final remedy and the continuation of groundwater monitoring have already been incurred and the remaining costs are minimal or under \$2,000 per year. The costs for a vapor mitigation system at the Facility are minimal or estimated at \$14,000. The costs to record an environmental covenant in the chain of title to the Facility property are minimal. The costs associated with issuing an order are also minimal.

9) Community Acceptance	The only comments EPA received on its proposed remedy for the Facility were from Safety Kleen and the owner. Based on those comments, EPA has made minor modifications and clarified certain aspects of the proposed remedy as described in Attachment A, EPA Response to Comments.
10) State/Support Agency Acceptance	MDE has reviewed and concurred with the final remedy for the Facility.

Section 7: Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's final remedy at the Facility. The costs to obtain orders or environmental covenants are minimal. Given that EPA's final remedy does not require any further engineering actions to remediate soil or groundwater contamination at this time and given that the costs of implementing institutional controls, vapor intrusion controls and the continuation of groundwater monitoring at the Facility will be minimal, EPA is proposing that no financial assurance be required.

Date: 11/21/2014



Per SA

John A. Armstead, Director
Land and Chemicals Division
US EPA, Region III

Attachments

Figure 1: Site Location Map

Attachment A: EPA Response to Comments

Section 8: Index to Administrative Record

Soil Gas Survey Results and Proposed Soil Boring locations, Safety Kleen Corporation, Silver Spring Service Center, 12164 Tech Road, Silver Spring, Maryland June 1991

Closure Report and Certification May 1996

Controlled Hazardous Substance Permit A-302 for Safety Kleen Systems Inc. Silver Spring, MD February 1, 2001

Tetrachloroethene Investigation Report, Former Safety Kleen Systems, Inc. Service Center, 12164 Tech Road, Silver Spring, Maryland, July 2, 2008

Compilation of Spill and Incident Reports from Review of MDE files for Safety Kleen's Tech Road facility by Art O'Connell MDE, July 10, 2008

Remedial Alternatives Evaluation Report, Former Safety-Kleen Corp. Service Center, 12164 Tech Road, Silver Spring, Maryland (MDD000737395), Controlled Hazardous Substance Permit No. A-302 December 11, 2008

Chesapeake Geoscience December 18, 2008 Report for MDE

Semiannual Progress Report Former Safety Kleen Corp. Service Center (January 1- June 30, 2011) June 30, 2011

Request for Permit Termination, Former Safety Kleen Service Center 12164 Tech Road, Silver Spring, MD, June 11, 2012

Semiannual Progress Report Former Safety Kleen Corp. Service Center (January 1- June 30, 2012) June 26, 2012

Technical Review and Summary Regarding Sources of Regional Tetrachloroethene, Former Safety Kleen Service Center, 12164 Tech Road, Silver Spring, Maryland (MDD000737395) October 9, 2012

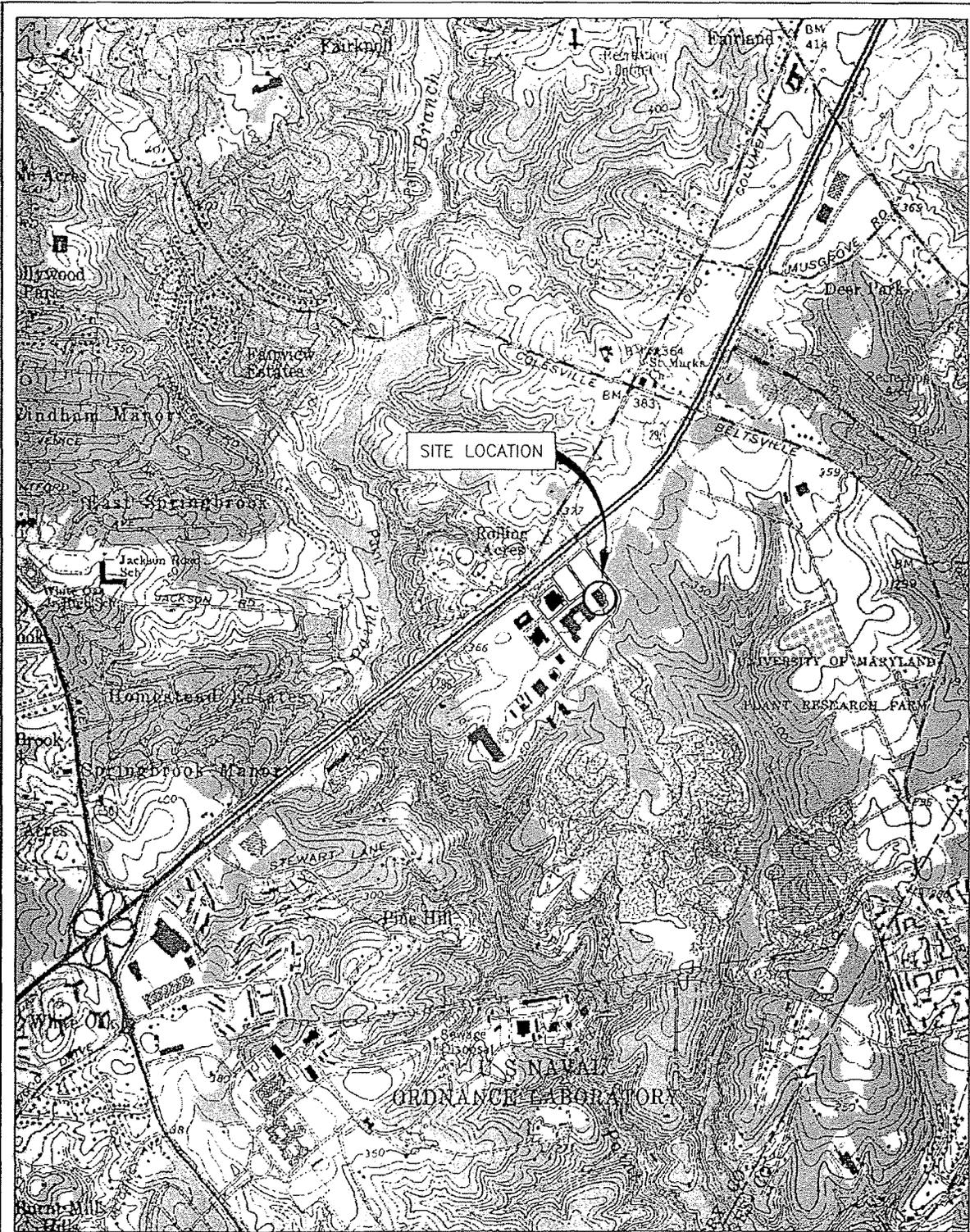
Semiannual Progress Report Former Safety Kleen Corp. Service Center (July 1- December 31, 2012) December 18, 2012

Semiannual Progress Report Former Safety Kleen Corp. Service Center (January 1- June 30, 2013) June 13, 2013

Groundwater Monitoring Event October 29, 2013

Indoor Air and Sub Slab Characterization Report November 2013

Figures



Base map: U.S.G.S. 7.5 Min. Quadrangle, Beltsville, MD, 1964 Photorevised 1979



0 2,000'



1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307.745.7474 (F) 307.745.7729

FIGURE 1

SITE LOCATION MAP

FORMER SAFETY-KLEEN CORP. SERVICE CENTER
SILVER SPRING, MARYLAND

Drawn By: REP

Checked By: AR

Scale: 1" = 2,000'

Date: 3/11/09

File: 198USGSSITE

**Attachment A to
Safety Kleen Silver Spring, Md
FDRTC**

EPA Response to Comments

During the comment period, EPA received comments from Safety-Kleen Systems, Incorporated (Safety Kleen), a former lessee of the Facility, and BDC Spectrum LLC (BDC), the current owner of the Facility, on the Statement of Basis. EPA's summary of Safety Kleen and BDC's comments and EPA's responses to those comments are set forth below.

Safety Kleen Comment No. 1 (Introduction)

Move the facility description to the introduction.

EPA's Response

It is EPA's practice to explain the RCRA Corrective Action program in the Introduction section of the SB. The placement of the Facility description does not affect EPA's remedy decision.

Safety Kleen Comment No. 2 (Facility Background)

The space formerly leased by Safety Kleen is rented to a Credit Union and a flower shop.

EPA's Response

EPA accepts this comment and has incorporated language into the Facility Background section of the FDRTC in response to this comment

Safety Kleen Comment No. 3 (Facility Background)

Insert: A Post-Closure Permit Application was submitted by S-K to the MDE in March 1997 to provide conceptual remediation plans to address the virgin and spent mineral spirit contamination remaining on the site in the area of the former USTs. In February 2000, S-K appealed the final draft permit through the State Office of Administrative Hearings based on several issues, including concerns over the regional PCE impacts caused by IFI and leaking sewers in the vicinity of the former S-K property. The appeal was settled through an agreement by MDE to eliminate the inclusion of a PCE action level in the Post Closure Permit because of 1) the regional PCE impacts, and 2) the fact that the mineral spirits impacts present at the S-K facility could not have caused the documented elevated PCE concentrations in well WSSC MW-4. PCE remains in the Post Closure Permit as a constituent of concern, but no action level is established for S-K in recognition of the regional PCE impacts.

EPA's Response

The Facility's post-closure permit application and the related appeal had no bearing on EPA's remedy proposal. Therefore, EPA has not included information about the application and appeal in the FDRTC.

Safety Kleen Comment No. 4 (Facility Background)

Delete the following sentence:

"In addition, PCE was spilled in the parking lot area from loading and unloading of solvents. MDE inspection reports also include details of leaking containers and problems with secondary containment for the PCE tanks in the building."

Replace it with:

"Based upon spill records from the site (Table 1 of the Tetrachloroethene Investigation Report dated July 2, 2008), it appears that only a very limited quantity of PCE was ever spilled outside the chemically resistant coated secondary containment areas (less than 17 gallons), and that these spills occurred over paved areas, which both limited potential impacts to subsurface soil and facilitated subsequent clean-up.

The secondary containment for the container storage areas were inspected by a licensed professional engineer for cracks or other potential lapses in integrity at the time of closure. The results of the CSA inspections conducted on April 15, 1996 indicated that, "there were no cracks, corrosion, fissures, or other failures present that had the potential to contaminate underlying soils."

EPA's Response

The Statement of Basis is a summary of the information EPA considered in proposing a remedy for the Facility Facility. Adding Safety Kleen's proposed statements would not change the remedy nor, with regards to spills, explain completely what happened at the Facility. Therefore, EPA has not included the proposed language in the FDRTAC. EPA will add to the Administrative Record the document "Compilation of Spill and Incident Reports from Review of MDE files for Safety Kleen's Tech Road facility by Art O'Connell MDE, July 10, 2008" which is the basis for EPA's statements about the PCE spills.

Safety Kleen Comment No. 5 (Environmental Investigations)

The PCE storage tanks were in Warehouse B, at 12158 Tech Road.

EPA's Response

EPA has corrected the location of the PCE tanks.

Safety Kleen Comment No. 6 (Environmental Investigations)

Delete the following paragraph because levels of contaminants are below MCLs and Region 3 screening levels:

Methyl tert-butyl ether (MTBE) was detected in two of the samples at concentrations of 2.6 and 3.9 ug/L, respectively (tap water SL of 12 ug/L). Toluene was detected in one sample at a concentration of 2.8 ug/L (MCL of 1000 ug/L). 1,1,2-Trichloro-1,2,2-trifluoroethane was detected in one sample at a concentration of 1.7 ug/L (tap water SL of 53,000 ug/L).

EPA's Response

EPA included the paragraph as a summary of what contaminants were found at the Facility. Since those contaminants were below their respective MCLs, EPA has not included the paragraph in the FDRTC.

Safety Kleen Comment No. 7 (Environmental Investigations)

Well PZ-1 is not a deep overburden well but an up gradient well.

EPA's Response

EPA has made the correction in the table.

Safety Kleen Comment No. 8 (Environmental Investigations)

Insert in the last paragraph on page 9 of the Statement of Basis "according to the Groundwater Monitoring Plan, which may be amended with USEPA approval."

EPA's Response

EPA has made the proposed change.

Safety Kleen Comment No. 9 (Corrective Action Objectives)

Amend the paragraph so drinking water standards are not the objective for the facility.

EPA's Response

EPA has clarified that a calculated background standard is the groundwater cleanup standard for the Facility.

Safety Kleen Comment No. 10 (Corrective Action Objectives)

Insert: Safety-Kleen may propose alternate cleanup objectives through completion of a human health risk assessment which takes into account the current restrictions placed on the use of groundwater as a drinking water source by Montgomery County.

EPA's Response

EPA has not included a Risk Based Cleanup Standard as an option in the FDRTC. Wherever practicable, EPA expects final remedies to return usable groundwater to drinking water standards otherwise known as Maximum Contaminant Levels (MCLs) even when there are use restrictions in place prohibiting potable uses of the groundwater. However, groundwater monitoring data establish that there is an upgradient off-site source of PCE at the Facility so that further remediation of that contaminant would not provide a significant reduction in risks to actual or potential receptors. Therefore, EPA's final remedy uses a calculated background standard as the cleanup standard for Facility groundwater.

Safety Kleen Comment No. 11 (Proposed Remedy)

Due to the comingled groundwater plumes, the distinction between plumes will be impossible to make for the determination if vapor intrusion controls should be installed. The installation of vapor intrusion controls should be based on the following paragraph:

A vapor intrusion control system, the design of which shall be approved in advance by EPA, shall be installed in each current and new structure located or constructed on the Facility, as necessary based on the results of indoor air sampling or using the most current USEPA Vapor Intrusion Screening values for groundwater, unless it is demonstrated to EPA that vapor intrusion does not pose a threat to human health and EPA provides prior written approval that no vapor intrusion control system is needed;

EPA's Response

EPA has clarified the sentence by requiring vapor intrusion controls for any future buildings constructed on the entire Facility. EPA will consider several factors to determine whether vapor intrusion controls are needed as stated in the Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils Nov 2002 and not one method as Safety Kleen suggests.

Safety Kleen Comment No. 12 (Proposed Remedy)

The following changes which are underlined for the following proposed remedy:

“The then current owner shall submit an annual written certification as part of the routine semiannual reports to EPA documenting; (1) an evaluation of the effectiveness of the remedy

maintaining stable or reducing contaminant concentrations and restoring groundwater to MCLs and (2) that the use restrictions are in place and effective;”

EPA's Response

EPA agrees with the first insertion, but disagrees with the second. EPA's final remedy uses a calculated background standard as the cleanup standard for Facility groundwater. Currently, on-site groundwater monitoring data show that Facility groundwater contains concentrations of PCE above the calculated background standard. Therefore, maintaining stable PCE concentrations at this time will not be sufficient.

Safety Kleen Comment No. 13 (Evaluation of Proposed Remedy)

For the last sentences under Threshold Criteria: Protection of Human Health and the Environment and Achieve Media Cleanup Objectives, Safety Kleen would like the sentence to read: “Vapor intrusion controls for existing and new construction shall be installed as necessary based on current EPA guidance.”

EPA's Response

EPA disagrees with the proposed change. The installation of vapor controls should be based upon EPA approval as the regulatory authority based on the Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils Nov 2002. The sentences will stay the same.

Safety Kleen Comment No. 14 (Evaluation of Proposed Remedy)

For the last sentence under Balancing Criteria, Short term Effectiveness, Safety Kleen would like the sentence to read:

“The groundwater monitoring program is already in place and will continue in accordance with the approved Groundwater Monitoring Plan.”

EPA's Response

EPA agrees with the proposed change and has modified the sentence in the FDRTC.

BDC Spectrum LLC Comment No. 1

1. Safety Kleen's Responsibility for the Proposed Remedy

First, the Statement of Basis should be revised to make clearer that Safety Kleen is the party responsible for implementing the remedy described in the Statement of Basis. Safety Kleen is the source of the releases and the sole current holder of the post closure permit (Controlled

Hazardous Substances Permit No. A-302) and all other permits issued by the Maryland Department of the Environment ("MDE") pursuant to MDE's delegated authority under the federal Resource Conservation and Recovery Act ("RCRA"). The Environmental Protection Agency ("EPA") has the authority to require Safety Kleen to implement the proposed remedy pursuant to the permit, among other means. The responsibilities that should be enumerated as Safety Kleen's include monitoring well installation or replacement if required by EPA or necessitated by property development, the implementation of the monitoring program, installation of new or replacement wells if required by EPA or necessitated by development on the property, sampling, installation of vapor control systems, any reports to EPA, including but not limited to any annual certification, provision of coordinate and metes and bounds surveys, all other measures necessary to implement the Statement of Basis, and the proper handling or disposal of soil contaminated by Safety Kleen's releases as needed in the course of excavation during development of the property.

EPA's Response

The purpose of the Statement of Basis is to describe EPA's proposed remedy and summarize the information considered in proposing the remedy. The Statement of Basis does not establish liability for implementing the remedy. EPA has clarified the language in the FDRTC to distinguish the Facility's current owners from the owners at the time of hazardous waste operations at the Facility.

BDC Spectrum LLC Comment No. 2

2. The Evidence of Safety Kleen's Releases, including Perchloroethylene ("PCE")

Second, the Statement of Basis should provide more background detail on Safety Kleen's responsibility for the releases on the property, including but not limited to Safety Kleen's handling and spillage of PCE, and data showing that on-site releases relating to Safety Kleen's operations are sources of PCE contamination currently present beneath the property as evidenced by, among other things, increased levels of PCE in groundwater located directly downgradient from the property and the presence of significant PCE vapor beneath the specific locations where Safety Kleen historically handled and stored the chemical. The Statement of Basis should provide additional detail on Safety Kleen's releases not only of PCE, but other volatile organic compounds ("VOCs"), including, but not limited to, trichloroethylene ("TCE"), mineral spirits, and petroleum products.

EPA's Response

The Statement of Basis provides a summary, supported by the Administrative Record, of the information considered by EPA to propose a remedy to addresses potential unacceptable risk from releases of hazardous constituents. The Statement of Basis does not address issues of liability.

BDC Spectrum LLC Comment No. 3

3. More Specificity that the Proposed Remedy is Not Intended to Preclude Residential Development

Third, the Statement of Basis should provide more specifically that the proposed remedy and associated restrictions will not preclude residential development of the property, whether as part of a mixed use development or otherwise. We understand that the Statement of Basis reflects this intent, but the document should state this explicitly.

EPA's Response

EPA agrees with the suggested clarification and has clarified that residential or commercial uses of the Facility property are acceptable.

BDC Spectrum LLC Comment No. 4

Section 1: Introduction

Safety Kleen's proposed edit of this section would narrow the definition of "Facility," and thus the area applicable to the Statement of Basis and Safety Kleen, and should not be adopted. Safety Kleen's responsibility should not be limited to the footprints of its buildings and operations, and should include any area impacted by a release from Safety Kleen.

EPA's Response

EPA defines the Facility to include all of the contiguous property associated with the Facility and has not narrowed the definition of Facility based on comments suggested.

BDC Spectrum LLC Comment No. 5

Section 2: Facility Background

The current owner of the property is BDC Spectrum LLC, not "Spectrum Partners L.L.C."

EPA's Response

EPA has included language in the FDRTC to reflect that the Facility is currently owned by BDC Spectrum LLC, not "Spectrum Partners L.L.C."

BDC Spectrum LLC Comment No. 6

Section 2: Facility Background

It is not correct that "the Facility is situated in an operating industrial park." The property is currently a commercial business park ("Tech Center 29") which includes a credit union, retail

and service businesses, and professional office space. BDC plans mixed residential and commercial development of the property.

Similarly, it is not accurate to characterize the "neighboring properties" as "involved in various forms of industrial activities." The neighboring properties and associated businesses include food, retail & service centers, office space, a hotel, a gym, and a church.

EPA's Response

EPA agrees with this comment and has incorporated language into the Facility Background section to reflect so.

BDC Spectrum LLC Comment No. 7

Section 2.2.1 UST Area

Please add the underlined language below as follows: "Groundwater monitoring at the facility has been on-going since July 1989 and has historically shown detections of TPH, benzene, toluene, ethylbenzene, xylene and some other VOCs, including chlorinated compounds such as perchloroethylene (PCE)."

EPA's Response

EPA agrees with this comment and has incorporated language into the Facility Background Section to reflect so.

BDC Spectrum LLC Comment No. 8

Section 2.2.1 UST Area

With respect to Safety Kleen's mark up, it should be clarified that part of the purpose of the actions proposed in the Statement of Basis is to determine the PCE levels that the releases from Safety Kleen operations are contributing to the groundwater as compared with any impact from regional background levels, for purposes of determining remedial objectives relating to the Safety Kleen releases. The data show that PCE originated from sources in addition to IFI.

EPA's Response

See EPA's response to Safety Kleen Comments # 4, 10 and 12.

BDC Spectrum LLC Comment No. 9

Section 2.2.1 UST Area

It would be premature to terminate Safety-Kleen's post closure permit in light of the remaining remedial action.

EPA's Response

The post closure permit was issued and is overseen by MDE. EPA has multiple enforcement authorities under which it may require implementation of the Final Remedy at the Facility.

BDC Spectrum LLC Comment No. 10

Section 2.2.2 Safety Kleen Building and Parking Lot

BDC requests that EPA decline to make the revision proposed in Safety Kleen's mark-up with respect to the discussion of Safety Kleen's spillage of PCE at the end of this section. EPA's description more accurately reflects the observations recorded in MDE inspection reports. Among other things, Safety Kleen's assertion that paved areas limited potential impacts is incorrect; PCE can penetrate concrete and other paved surfaces.

EPA's Response

See EPA's response to Safety Kleen Comment # 4.

BDC Spectrum LLC Comment No. 11

Section 3.1.1 Environmental Investigations -UST Area- Closure Report and Certification, May 1996

Please revise the second to last sentence as follows: "Low[er] concentrations of nine volatile organic compounds (VOCs), which included chlorinated solvent constituents, were also detected above the laboratory detection limit in the April 1996 soil UST excavation samples."

EPA's Response

EPA partially agrees with this comment as PCE was the only chlorinated solvent detected and has incorporated language into the Facility Background section to reflect so.

BDC Spectrum LLC Comment No. 12

Section 3.1.2 Environmental Investigations -UST Area- Dec.18, 2008

Please note that the sub-slab sampling phase of the 2008 MDE investigation delineated localized PCE "hotspots" below and between the two tenant spaces of the former S-K facility (12158 Tech Rd and 12164 Tech Rd.).

EPA's Response

The statement provided in the Statement of Basis is an accurate summary of the 2008 MDE investigation. The 2008 MDE investigation in its entirety is included in the Administrative Record.

BDC Spectrum LLC Comment No. 13

Section 3.1.3 Facility Wide Conditions —Soil Gas Results and Proposed Soil Boring Locations June 1991

The report and corresponding soil gas concentration contour maps generated for the April and June 1991 soil gas investigation conducted by Target Environmental Services, Inc. ("Target") show a region of pervasive petroleum hydrocarbon and chlorinated solvent vapor constituents, including PCE, delineated around the north-east and south-east walls of the former Safety Kleen facility, highlighting that the facility is an evident source of such substances. Also pointing to Safety Kleen as a source, the data for the area immediately downgradient of the former Safety Kleen tank field demonstrated soil vapor impacts from these constituents. Consistent with this, soil gas concentrations dropped off substantially as sampling moved east and away from the building and tank field toward the regional IFI PCE plume. Data from thirteen soil vapor samples that were collected on the adjacent properties to the east of the Tech Road sewer line in an area historically associated with the regional IFI PCE groundwater plume, showed no soil vapor contamination above detection limits.

EPA's Response

The soil gas survey was used to determine soil sampling locations and not the locations of the source of contamination. The soil gas locations do not always correspond to contamination in soil. EPA used the report as an indicator of the presence of contaminants.

BDC Spectrum LLC Comment No. 14

Section 3.1.3 Facility Wide Conditions Groundwater Monitoring Event, October 29, 2013

This section notes that "Safety-Kleen completed installation of three upgradient wells, MW-12, 13 and 14, as well as piezometer PZ-2 and 2 in October 2013." However, during the review of the draft Groundwater Monitoring Plan developed for the Final Remedy, EPA noted, in a memorandum dated February 11, 2014, that MW-12 was "not upgradient of the former S-K building nor is it upgradient of the contaminated groundwater impacting monitoring wells immediately adjacent to the former building." Thus, EPA declined to adopt S-K's proposal to use well MW-12 as an upgradient well during implementation of the Final Remedy. The Statement of Basis should be revised accordingly, and MW-12 should not be characterized as upgradient.

EPA's Response

EPA agrees with this comment and has incorporated language into the Facility Background section to reflect so.

BDC Spectrum LLC Comment No. 15

Section 3.1.3 Facility Wide Conditions Groundwater Monitoring Event, October 29, 2013

The Statement of Basis should be modified to recognize that four of the five highest PCE groundwater concentrations measured during the October 29, 2013 sampling event (MWs-6, 9, 10 and 11) were located downgradient and in proximity to the south-east wall of the former Safety Kleen tenant space (12164 Tech Rd.) It should also be noted that these findings were consistent both with the peak detections found in the same area in the Target 1991 soil gas study and with the elevated MIP ECD detector responses noted in the area during the MIP Survey, Soil Boring Program and Sub-Slab Vapor and Indoor Air Sampling Event directed by MDE in 2008. In addition, it should be noted that during the October 29, 2013 sampling event, the PCE concentrations in downgradient monitoring wells 6, 9, 10 and 11 were one to two orders of magnitude higher than the PCE concentrations found in wells positioned upgradient of the Facility building, including EPA-approved background wells MW-13 and MW-14. Such data point directly to Safety Kleen as a source of PCE in the subsurface at the facility.

EPA's Response

The Statement of Basis is a summary of the information EPA relied on to propose a remedy for the Facility. The documents in the Administrative Record provide the details of the environmental investigations. The addition of the proposed changes will not affect the proposed remedy. Therefore, EPA has not made the proposed change.

BDC Spectrum LLC Comment No. 16

Section 3.1.3 Facility Wide Conditions Groundwater Monitoring Event, October 29, 2013

It should be made clear in the last paragraph of this section that the purpose of EPA's comparison of PCE concentrations in the groundwater monitoring plan proposed for the Final Remedy is to account for upgradient, background well concentrations when determining suitable cleanup levels in the downgradient compliance wells identified for the Facility. EPA states instead that the purpose is "[t]o evaluate whether PCE in on-site groundwater is attributable to the Facility or coming from off-Site." We had understood that instead the purpose is to distinguish between what, if any PCE is coming from off-site and what originates on-site. The foregoing quoted clause should accordingly be deleted and the paragraph should be modified to more clearly state the purpose of comparing the upgradient and downgradient PCE concentrations.

EPA's Response

EPA agrees with this comment and has incorporated language into Section the Facility Background to reflect so.

BDC Spectrum LLC Comment No. 17

Section 3.1.3 Facility Wide Conditions—Indoor Air ("IA") and Sub Slab ("SS") Characterization Report November 2013

This section should be revised to note that in summary, the results noted in the 2013 IA and SS Characterization Report confirm that the localized sub slab and indoor air vapor "hot spots" were detected in the same areas as those delineated during MDE's 2008 investigation. Sub-slab concentrations of PCE located below the former Safety Kleen tenant space (12158 Tech Rd) and between the Safety Kleen tenant spaces actually increased by one order of magnitude (from 1,900 ug/m³ to 24,000 ug/m³) between the 2008 and 2013 investigations. Sub-slab gas beneath the building has not sufficiently attenuated over time.

EPA's Response

The number of samples taken are too few to establish a trend in sub slab PCE concentration especially in light of the wide range of PCE detected in the sub slab. EPA does state in the Statement of Basis:

"Comparison of recent sub-slab PCE concentrations (24,000 µg/m³) with values obtained from corresponding tests collected below the tenant space in 2008 (1,190 µg/m³) indicate that PCE vapor continues to exist beneath the Phase IB building."

EPA has clarified in the FDRTC that this sampling confirmed that the localized sub slab and indoor air vapor "hot spots" were detected in the same areas as those delineated during MDE's 2008 investigation.

BDC Spectrum LLC Comment No. 18

Section 3.1.3 Facility Wide Conditions—Indoor Air ("IA") and Sub Slab ("SS") Characterization Report November 2013

This section should be revised to note that while PCE did not exceed the EPA industrial screening level (47 ug/m³) in any indoor air samples during the 2013 evaluation, it approached the EPA industrial SL value at the former Safety Kleen tenant space (12158 Tech Rd.), with a concentration of 38 ug/m³.

EPA's Response

EPA did consider the PCE value of 38 ug/m³ in proposing a remedy that requires vapor intrusion controls. EPA has accordingly revised the Threshold Criteria, 1. Protect Human Health and the Environment Section.

BDC Spectrum LLC Comment No. 19

Section 3.1.3 Facility Wide Conditions—Indoor Air ("IA") and Sub Slab ("SS") Characterization Report November 2013

The following should be noted: The VOC 1,2-Dichloroethane (1,2-DCA) exceeded the corresponding EPA industrial SLs for indoor air in five of seven tested tenant spaces during the June 2013 IA and SS investigation. In historic Safety Kleen correspondence (Technical Review and Summary Regarding Sources of Regional Tetrachloroethene, October 2012), Safety Kleen has identified this constituent, along with 1,2,4-Trimethylbenzene (1,2,4- TMB) as associated with waste mineral spirits. It is established in the historic record for the former S-K facility that mineral spirits were used and released during Safety Kleen's operations. (MDE Controlled Hazardous Substances (CHS) Permit A-302- Effective Date December 11, 2008 —December 10, 2018.)

EPA's Response

1,2-Dichloroethane and 1,2,4-Trimethylbenzene (1,2,4- TMB) were not found in the sub slab samples. EPA has therefore determined that the source of those contaminants is not contaminated soil or groundwater.

BDC Spectrum LLC Comment No. 20

Section 3.1.3 Facility Wide Conditions—Indoor Air ("IA") and Sub Slab ("SS") Characterization Report November 2013

The following should be added: During the 2013 IA / SS Investigation, possible PCE "preferential" vapor flow along an existing gas utility entering the facility from Tech Road was evaluated at the IA-9 / VMP-9 utility room location. While detectable, the sub-slab PCE concentration noted beneath the utility room was three orders of magnitude lower than the peak sub-slab concentration sampled found below the former Safety Kleen tenant space (12158 Tech Road).

EPA's Response

EPA agrees with this comment and has incorporated language into the Facility Background section to reflect so.

BDC Spectrum LLC Comment No. 21

Section 4 —Corrective Action Objectives

In light of the indoor air issues and the proposed vapor intrusion system, indoor air should be added as a specific environmental media. The exceedances and near exceedances of industrial

screening levels for constituents associated with previous Safety Kleen activities at the Facility should be noted. Overall, a compliance indoor air sampling program should be implemented by Safety Kleen with the Final Remedy to assure that the required vapor intrusion controls are providing adequate vapor mitigation to tenants.

EPA's Response

The proposed remedy requires the installation of a vapor control system (Section 5.B.4) as part of the remedy for the groundwater contamination. As stated in the Statement of Basis (Section 5.B), EPA will pursue one or a combination of mechanisms and authorities to ensure that the Final Remedy is implemented and complied with.

BDC Spectrum LLC Comment No. 22

Section 5 -Proposed Remedy

Soils

The remedy should require Safety-Kleen to treat or remove contaminated soils that as may be necessary during use or development of the property.

EPA's Response

EPA has made a Corrective Action Complete without Controls determination for Facility soils because based on the available information, there are currently no known unacceptable risks to human health and the environment from Facility soils. However, it is the intent of Section 5.B.2 and 5.B.6, 5.B.7 to prevent and/or identify changes at the Facility that could affect to the protectiveness of the Final Remedy, and that the Agency be notified of such event.

BDC Spectrum LLC Comment No. 23

Section 5 -Proposed Remedy

Groundwater

There has been no study of the feasibility of biodegradation attenuation processes for the Facility to date. Safety Kleen should be required to undertake such a study in order to assure that the proposed remedy will be effective.

EPA's Response

Reliance on natural attenuation processes to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other more active methods is acceptable as a remedy. The natural attenuation processes that are at work in such a remediation approach include a variety of physical or chemical processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater. These in-situ processes include:

dispersion; dilution; sorption; volatilization; and chemical stabilization, transformation, or destruction of contaminants.

As stated in the Statement of Basis:

Monitoring at the Facility has shown that the extent of contamination in groundwater attributable to the Facility is not increasing and concentrations of those contaminants are declining over time. Therefore, the final remedy for groundwater consists of natural attenuation with continued monitoring until background concentrations are met, and compliance with and maintenance of groundwater use restrictions, to be implemented through institutional controls, at the Facility to prevent exposure to contaminants while concentrations remain above drinking water standards.

Safety Kleen's Semiannual Progress Report Former Safety Kleen Corp. Service Center (January 1- June 30, 2013) June 13, 2013 describing the degradation of PCE and TPH demonstrates that onsite PCE concentrations in the wells have been stable or decreasing. An additional study is not needed to establish that the contaminants at the site are degrading by natural attenuation and a study is not needed for biodegradation. This report is part of the Administrative Record.

EPA has clarified that if performance monitoring indicates that the current extent of contamination in groundwater begins to expand or concentrations in groundwater begin to increase, EPA may require additional corrective actions.

BDC Spectrum LLC Comment No. 24

Section 5 -Proposed Remedy

Groundwater

Safety Kleen's mark-up proposes the addition of language on page 12 stating that Safety Kleen may propose alternate clean up objectives though completion of a human health risk assessment taking account of current Montgomery County restrictions on groundwater use. It is inappropriate to include this in the Statement of Basis, particularly in light of EPA's stated clean up goals and previous rejection of Safety Kleen's approach as reflected in the Statement of Basis.

EPA's Response

Please see EPA's response to Safety Kleen Comment No. 10.

BDC Spectrum LLC Comment No. 25

Section 5 -Proposed Remedy

Safety Kleen's mark-up proposes revisions to the paragraph on page 14 numbered 4 do limit the installation of vapor intrusion control systems to structures installed on the "facility," which Safety Kleen has defined elsewhere very narrowly without reference to its releases. This is an

inappropriate limitation because such systems should be installed wherever warranted due to Safety Kleen's releases regardless of where those releases have had an impact.

EPA's Response

See EPA's response to BDC Comment No. 4

BDC Spectrum LLC Comment No. 26

Section 6 —Evaluation of Proposed Remedy

The cost of installing an adequate vapor mitigation system to correct S-K derived impacts at any building located on the property would likely substantially exceed the projected estimate of \$14,000. Our consultant, GES, has estimated that such costs for one building could be in the range of \$10,000 to \$50,000. Operation and maintenance of such a system, compliance and performance sampling for both the system and the indoor air tenant spaces, and groundwater sampling and subsequent reporting would also likely exceed the noted \$2,000 per year projection. GES estimates that the actual cost could be in the range of \$5,000 to \$15,000 per year overall.

EPA's Response Please note that these costs are "estimates". EPA uses \$1M, over a ten year term, as a threshold to require financial assurance and as part of its remedy implementation oversight monitors the financial capacity and health of responsible party implementing the remedy. If circumstances change and a need for financial assurance develops during the implementation of the remedy, EPA will reevaluate its decision.

BDC Spectrum LLC Comment No. 27

Section 7 —Financial Assurance

In light of the costs noted in our discussion of Section 6 above, Safety Kleen should be required to provide financial assurance to cover current and future buildings at the site. We request that these comments be included in the administrative record. We appreciate EPA's consideration of our comments and attention to this matter.

EPA's Response

See EPA Response to BDC Comment 26.