

**UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION III**

**FINAL DECISION  
SAFETY KLEEN SYSTEMS INC. WHEELING, WV**

**PURPOSE**

The United States Environmental Protection Agency (EPA) is issuing this Final Decision and Response to Comments (FDRTC or Final Decision) selecting the Final Remedy for the Safety Kleen Systems Inc. facility located at Wheeling, WV (hereinafter referred to as the 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. Sections 6901, et seq.

On May 15, 2014, EPA issued a Statement of Basis (SB) in which it described the information gathered during environmental investigations at the Facility and proposed a Final Remedy for the Facility. The SB is hereby incorporated into this Final Decision by reference and made a part hereof as Attachment A.

This FDRTC selects the remedy that EPA evaluated under the SB. Consistent with the public participation provisions under RCRA, EPA solicited public comment on its proposed Final Remedy. On May 30, 2014, notice of the SB was published on the EPA website: [[http://www.epa.gov/reg3wcmd/publicnotice\\_SafetyKleenWheeling.html](http://www.epa.gov/reg3wcmd/publicnotice_SafetyKleenWheeling.html)] and in the Wheeling News-Register newspaper. The thirty (30) day comment period ended on June 29, 2014.

EPA did receive a comment on the SB and EPA has determined it is not necessary to modify the proposed Final Remedy set forth in the SB based on the comment; thus, the remedy proposed in the SB is the Final Remedy selected by EPA for the Facility.

**FINAL DECISION**

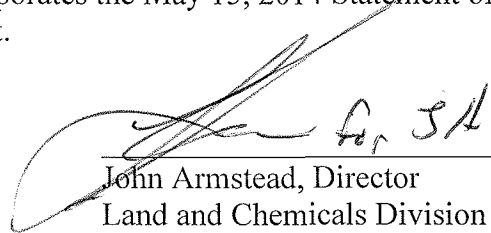
EPA's Final Remedy for the Facility consists of the following:

- Monitored natural attenuation until drinking water standards are met and
- Compliance with and maintenance of institutional controls.

## DECLARATION

Based on the Administrative Record compiled for the corrective action at the Safety Kleen Systems Inc. facility, I have determined that the remedy selected in this Final Decision and Response to Comments, which incorporates the May 15, 2014 Statement of Basis, is protective of human health and the environment.

Date: 7/9/14



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John Armstead, Director  
Land and Chemicals Division  
U.S. Environmental Protection Agency, Region III

Attachment A: Statement of Basis (May 15, 2014)

Attachment B: Response to Comments

Attachment A





UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION III

STATEMENT OF BASIS

SAFETY KLEEN SYSTEMS INC.

WHEELING, WEST VIRGINIA

EPA ID NO. WVD981034101

Prepared by  
Office of Remediation  
Land and Chemicals Division  
May 2014

## Table of Contents

Section 1: Introduction .....	1
Section 2: Facility Background .....	2
Section 3: Summary of Environmental Investigations .....	3
Section 4: Corrective Action Objectives .....	9
Section 5: Proposed Remedy .....	10
Section 6: Evaluation of Proposed Remedy .....	12
Section 7: Financial Assurance.....	15
Section 8: Public Participation.....	15
Section 9: Index to Administrative Record .....	16

## List of Acronyms

AR	Administrative Record
COC	Contaminant of Concern
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
PCE	Perchloroethylene
RBC	Risk Based Contaminants
RCRA	Resource Conservation and Recovery Act
SB	Statement of Basis
SL	Screening Level
SSL	Soil Screening Level
TPH	Total Petroleum Hydrocarbons
VOC	Volatile Organic Compound

## Section 1: Introduction

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The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the Safety-Kleen Systems Inc. facility located in Wheeling, West Virginia (hereinafter referred to as the Facility or Site). EPA's proposed remedy for the Facility consists of the following components: 1) monitored natural attenuation until drinking water standards are met and 2) compliance with and maintenance of institutional controls. This SB highlights key information relied upon by EPA in proposing its remedy for the Facility.

The Facility is subject to EPA's Corrective Action program under the Solid Waste Disposal Act, as amended, commonly referred to as the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6901 *et seq.* The Corrective Action program requires that facilities subject to certain provisions of RCRA investigate and address releases of hazardous waste and hazardous constituents, usually in the form of soil or groundwater contamination, that have occurred at or from their property.

EPA is providing a thirty (30) day public comment period on this SB. EPA may modify its proposed remedy based on comments received during this period. EPA will announce its selection of a final remedy for the Facility in a Final Decision and Response to Comments (Final Decision) after the public comment period has ended.

Information on the Corrective Action program as well as a fact sheet for the Facility can be found by navigating <http://www.epa.gov/reg3wcmd/correctiveaction.htm>. The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed decision is based. See Section VIII, Public Participation, for information on how you may review the AR.

## Section 2: Facility Background

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### 2.1 Introduction

The Facility is currently owned by Safety-Kleen Systems, Incorporated of Plano, Texas (Safety-Kleen), and is an accumulation center for spent solvents generated by its customers and a distribution center for clean solvents to be delivered to its customers. The spent solvents are ultimately shipped to a Safety-Kleen recycling facility or a contract reclaimer, and then returned to the Safety-Kleen's customers as product.

Safety-Kleen has operated at the Facility since 1984. The Facility consists of several structures situated on 1.28 acres of land. These structures include a building with offices and a warehouse for container storage, a flammable waste storage building, and two tank farms surrounded by concrete diking.

The Facility is situated in an operating industrial park. Neighboring properties are involved in various forms of manufacturing and related industrial activities. Liquid Assets Disposal Incorporated, a company specializing in waste reduction, disposal, and recycling services, occupies the property upgradient of the Facility and is located at 99 Peninsula Drive. W A Wilson Incorporated, a glass distributor, is located cross gradient of the Facility at 6 Industrial Park Drive.

Prior to development, the industrial park was backfilled and leveled to grade to provide easily accessible properties for usage; the Facility has been documented to be underlain by urban fill material. Multiple investigations at the Facility have shown the subsurface soils to be fill material comprised of poorly sorted clay, gravel, and sands with non-soil related construction and fill material such as brick, glass, and metals. Information provided by persons familiar with the grading activities indicated the presence of "crushed" automobiles and household refuse such as washers and dryers based upon historic test pits and assessment activities completed at the Facility. The reported thickness of the fill in monitoring wells MW-1 through MW-4 ranges from 15 feet (MW-1) to 37 feet (MW-3). Wheeling Creek circles around the northwestern margin of the Facility.

This portion of West Virginia is part of the Upper Ohio-Wheeling watershed basin, which eventually flows toward the southwest to the Mississippi River. Groundwater flows west across the Facility to Wheeling Creek, which is a tributary to the Ohio River. The entire length of Wheeling Creek is listed on the West Virginia 2010 Integrated Report 305(b) List of Impaired Waterways. It is listed as a Category 4a – waters that are impaired for one or more uses because of Fecal Coliform levels in the creek.

WVDEP issued a Hazardous Waste Management Permit, Permit Number: WVD 981034101 (WVDEP Permit) to Safety-Kleen on April 8, 2004 for the purposes of

Statement of Basis



operating hazardous waste management units of one storage tank and two storage container areas. The Permit, which expired on April 8, 2014, has been administratively extended.

## **2.2 Areas of Investigation**

EPA conducted a Site Inspection (SI) on October 7, 2009 to consolidate relevant information for the Facility.

During the SI, EPA noted two spill events have been recorded at the Facility. During the first spill in May 1990, Facility personnel discovered hydrocarbons discharging from a PVC pipe whose outfall was located near the northern corner of the Facility property. The outfall and the sump near the return and fill were immediately capped. In addition Safety-Kleen personnel excavated soils containing minerals spirits down gradient of the PVC pipe outfall; approximately 60 cubic yards of soil were excavated and stockpiled. All work was completed under the auspices and approval of the West Virginia Department of Environmental Protection (WVDEP). As a result of groundwater monitoring conducted during the remediation, groundwater was found to contain perchloroethylene (PCE).

WVDEP investigated a second release at the Facility on August 24, 2006. A small amount of diesel fuel leaked from a drum onto a portion of the Facility covered with asphalt. The drum was over packed, the spill was cleaned up, and the asphalt was repaired.

## **Section 3: Summary of Environmental Investigations**

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### **3.1 Environmental Investigations**

For all environmental investigations, groundwater concentrations were screened against Drinking Water Standards (Federal Maximum Contaminant Level (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 Risk-Based Concentration (RBCs) for tap water (designated as Screening Levels for tap water (SLs)) for chemicals for which there are no applicable Federal MCLs. Also, soil concentrations were screened against EPA RBCs for residential soil and industrial soil (designated as SLs). EPA also has Soil Screening Levels to protect groundwater (SSLs) and soil concentrations were also screened against these levels. If EPA has no MCL or SL for a contaminant, West Virginia's Migration to Groundwater standard was used.

Results for TPH sample analysis at the Facility represent the total mass of hydrocarbons present in the sample without identifying individual compounds. EPA Region 3 has published screening levels (SLs) for individual fractions of TPH with similar physical and chemical properties; however, these SLs for TPH fractions cannot be

Statement of Basis

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compared to results for the aggregate total concentrations. While no comparison of reported TPH concentrations to EPA Region 3 SLs can be made, note that WVDEP had a groundwater cleanup standard for TPH of .33 mg/L and a residential soil cleanup standard for TPH of 2500 mg/kg.

Safety-Kleen, under the oversight of WVDEP, conducted several investigations in the northern portion of the Facility to assess the release and impact of the hydrocarbons and evaluate the soil and groundwater conditions.

In June 1990, Safety-Kleen installed 12 soil borings (SB-1 through SB-12) to determine whether petroleum hydrocarbons had migrated along the sandy fill surrounding the discharge pipe (See AR: Environmental Investigation Safety Kleen Systems, Wheeling, WV July 6, 1990).

Eight of the 12 soil borings were installed extending from the PVC pipe outfall to the location of a surface water drainage sump located immediately to the northeast of the return and fill area; the remaining four soil borings were installed near the down gradient periphery of the Facility. Soil samples were sent to an accredited laboratory and analyzed for TPH as mineral spirits via EPA method 8015.

Analytical results revealed non-detectable petroleum hydrocarbon concentrations in all sample locations (SB-1 through SB-12) except for boring SB-8 that was advanced nearest the return and fill area. The SB-8 soil sample exhibited a TPH as mineral spirits concentration of 2,900 milligram per kilogram (mg/kg), which is above WVDEP's Migration to Groundwater standard. EPA has no MCL or SLs for TPH in soil or groundwater.

In March of 1991, work started to confirm the suspected source of the hydrocarbon release, reduce the potential for continued migration of hydrocarbons and determine the quality of the fill surrounding the discharge pipe (See AR: Interim Remediation Report, Safety Kleen Systems, Wheeling, West Virginia April 23, 1991). It was determined that the source of the subsurface hydrocarbons was the sump inside the return and fill area. The subsurface hydrocarbons appeared to have migrated via the PVC discharge pipe and the sandy fill surrounding the pipe. The pipe was not excavated. Instead two trenches (TR-1 and TR-2) were installed at either end of the discharge pipe, to facilitate the removal of sections of the pipe and determine the quality of the surrounding fill. A third exploratory trench, TR-3, was installed down gradient of TR-2 to intersect any piping that may have extended from the sump area north. Separate phase hydrocarbons were encountered during the installation of TR-3. An automated product recovery system was subsequently installed into an 18-inch diameter recovery well (RW-1) installed within TR-3.

Soil samples were collected from the base of each trench and analyzed for concentrations of TPH as mineral spirits. The sample located near the outfall, TR-1,

Statement of Basis

contained no detectable hydrocarbons. Sample TR-2, located adjacent to the return and fill area, recorded TPH concentrations of 5,900 mg/kg, which exceeded the WVDEP De Minimis Levels for Residential soils and Migration to Groundwater but was below the Industrial limits (EPA does not have an SL for TPH). Separate phase hydrocarbons were observed during the installation of trench TR-3.

Safety-Kleen submitted an Expanded Environmental Investigation (EEI) Workplan to WVDEP on July 26, 1991. The EEI Workplan was divided into three phases:

Phase I - Shallow Boring/Piezometer Installation,

Phase II - Shallow Well Installation, and

Phase III - Deep Well Installation.

WVDEP approved the EEI Workplan on September 27, 1991. In October 1991, Safety-Kleen began work with the advancement of 12 additional soil borings (TB-1 through TB-12) at the Site to further characterize the near-surface lithology and vertical extent of contamination in the soil and the hydraulic conditions in the shallow water bearing zones (See AR: Expanded Environmental Investigation (EEI), Phase I Report Safety Kleen Systems Wheeling, West Virginia December, 1991). Three (TB-4, TB-7 and TB-8) of the 12 test borings were finished as 1.25 inch diameter piezometers and renamed PZ-1, PZ-2 and PZ-3, accordingly. These locations ranged in installation depth from 12.3 feet (PZ-1) to 6.9 feet (PZ-2). Also, soil samples were collected from each of the soil borings and analyzed for volatile organic compounds (VOCs), TPH, lead, cadmium and chromium.

VOCs were detected in soil borings TB-1 (PCE, toluene and TCE) and TB-2 (benzene, toluene and xylene). VOCs were not detected in any of the other soil samples collected during this investigation. The reported concentrations in all of the collected soils sampled were significantly below all applicable WVDEP De Minimis Levels.

Soil samples recorded TPH detections ranging in concentration from 28 mg/kg (TB-1) to 81 mg/kg (TB-2). TPH detections were not reported in soil samples collected from borings TB-11 and TB-12. The reported TPH concentrations in all the collected soil samples were significantly below WVDEP De Minimis Levels for Industrial and Residential Soils; only one soil sample (TB-2) contained a TPH concentration above the WVDEP De Minimis Levels for Migration to Groundwater.

Cadmium was detected in the soil samples collected from all the test boring locations ranging in concentration from 1.1 mg/kg (TB-1) to 6 mg/kg (TB-2). EPA's SL for residential soil for Cadmium is 70 mg/kg.

EPA has determined that the concentration of chromium in soils does not pose a risk to human health or the environment. Total chromium was detected in the soil samples collected from 9 of the test borings ranging in concentration from 10 mg/kg (TB-

Statement of Basis

3 and TB-7) to 16 mg/kg (TB-5), below the West Virginia background concentration for total chromium of 46 mg/kg (from the EPA Guidance for Developing Eco-SSLs November 2003). One sample at 10-12 feet (TB-2) had total chromium at 800 mg/kg which is below EPA's SSL for total Chromium of 180,000 mg/kg.

EPA has determined that the concentration of lead in soils does not pose a risk to human health or the environment. Lead was detected in 11 of the 12 soil samples collected ranging in concentration from 6.2 mg/kg (TB-4) to 550 mg/kg (TB-2). Lead was not detected at or above the method detection limit in TB-1. The average lead concentration being 74 mg/kg which is below EPA's Screening Level for Residential soils of 400 mg/kg. All samples analyzed for cadmium, chromium and lead recorded concentrations below the WVDEP De Minimis Levels for Industrial soils and Migration to Groundwater; except one sample (TB-2). The rest of the lead concentrations ranged from non-detect to 80 mg/kg. Also, there is no evidence that Safety-Kleen used lead at the Facility.

Installation of groundwater monitoring wells commenced on February 22, 1993. However, advancing the boreholes through the fill and rubble beneath the Facility using hollow stem auger techniques was unsuccessful. WVDEP verbally approved allowing the use of cable tool drilling techniques (See AR: Expanded Environmental Investigation (EEI), Phase III Report Safety Kleen Systems Wheeling, West Virginia June 10, 1993).

Safety-Kleen installed four deep soil borings to depths ranging from 43 feet below ground surface to 75 feet below ground surface using cable tool drilling techniques in March of 1993. These borings were finished as four monitoring wells (MW-1 through MW-4) set into the uppermost aquifer at depths ranging from 35 feet deep to 55 feet deep. MW-1 was installed on the upgradient side of the Facility, MW-2 and MW-3 were installed along the down gradient side of the Facility, and MW-4 was installed near the suspected source of the hydrocarbon release. A minimum of two soil samples were selected from each boring based upon highest observed impacts, and analyzed VOCs, TPH, and metals (cadmium, chromium and lead).

All soil samples collected during this phase of investigation reported analyte concentrations below WVDEP De Minimis Levels and EPA SLs for soils (Industrial, Residential and Migration to Groundwater). One lead sample (MW-4) at 30-32 feet had a lead concentration of 4,180 mg/kg. The sample above it at 13-15 feet contained 22.4 mg/kg lead and a soil sample below it at 45-47 feet contained 13.9 mg/kg lead. The eight soil samples (excluding the MW-4 at 30-32 feet) analyzed for lead ranged from 10 mg/kg to 26 mg/kg. The average of all samples being 478 mg/kg which is above EPA's Screening Level for Residential soils of 400 mg/kg. Excluding the high lead level sample, the average is 16 mg/kg which is below EPA's SL and more accurately represents lead levels at the Facility.

Groundwater samples were collected from the newly installed monitoring wells

Statement of Basis

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Safety Kleen Systems Inc.

May 2014  
Page 6

on April 19, 1993 and analyzed for VOCs, TPH, and metals (cadmium, chromium and lead). Only one groundwater sample (MW-3) recorded a constituent (PCE at 1.2 mg/L) which exceeded the MCL (0.005 mg/L).

Soil and groundwater results showed impacts within and immediately down gradient from the return and fill station. The sump and discharge line were removed during remediation. An automated product recovery system was subsequently installed near the return and fill station to recover any separate phase mineral spirits that may accumulate within the backfilled sump/trenched area.

### **3.1.3 Facility Wide Groundwater Conditions**

The Facility has been routinely monitored since 1993, and the groundwater monitoring wells were routinely sampled on a quarterly basis between January 2000 and April 2009. At the request of the EPA and WVDEP, activities at the Facility were re-initiated in 2012 with the purpose of characterizing Facility groundwater quality conditions. The four monitoring wells at the Facility were redeveloped on May 3, 2012; monitoring well MW-3 did not contain sufficient water for redevelopment. Groundwater samples were collected from the monitoring wells on June 1, 2012 for VOC analysis; monitoring well MW-3 did not contain water, and, therefore, could not be sampled. Because of the continued lack of water in monitoring well MW-3, two additional monitoring wells (MW-5 and MW-6) were installed in August 2012 to further characterize Site-wide groundwater quality and flow conditions. The six monitoring wells at the Facility were sampled on September 19, 2012; monitoring well MW-3 was dry, and, therefore, no sample could be collected. Monitoring wells MW-5 [85 micrograms per liter (ug/l)] and MW-6 (37 ug/l) reported concentrations of PCE above the MCL of 5 ug/l during this first sampling event. The results of this sampling and assessment program resulted in the EPA requesting that Safety-Kleen complete additional site assessment and sampling activities at the Facility.

A Membrane Interface Probe (MIP) survey was completed during June 2013. Eleven locations were utilized to conduct the survey. Based on the results of the MIP survey, monitoring wells 7, 8, and 9 were installed on July 30-31, 2013.

Monitoring wells 1-9 (except MW-3) were sampled on August 28, 2013. The highest concentration of PCE was 430 ppb at MW-5. Monitoring wells at the edge of the Facility property near Wheeling Creek had PCE levels above the MCL of 5 ug/l. MW-6 had 100 ppb PCE, MW-8 had 19 ppb PCE and MW-9 had 47 ppb PCE.

Wheeling Creek was sampled on April 9, 2014 to verify PCE was not reaching the Creek. The sampling results did not detect PCE or any Facility-related contaminants.

## **3.2 Environmental Indicators**

Statement of Basis

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 (2) Migration of Contaminated Groundwater Under Control. The Facility met the first indicator on September 9, 2011 and the second indicator on May 5<sup>th</sup>, 2014. The environmental indicator determinations are available at <http://www.epa.gov/reg3wcmd/ca/md.htm>.

## **Section 4: Corrective Action Objectives**

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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 are protective of human health and the environment.

**2. Groundwater**

EPA's Corrective Action Objectives for Facility groundwater is to restore the groundwater to drinking water standards and until such time as drinking water standards are restored, to control exposure to the hazardous constituents remaining in the groundwater by requiring the continued implementation of the groundwater monitoring program, compliance with and maintenance of groundwater use restrictions at the Facility to prevent migration of contaminants while levels remain above Federal MCLs and SLs.

## Section 5: Proposed Remedy

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### A. Soils

EPA proposes 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 therefore, EPA proposes that no land use restrictions are required at the Facility.

### B. Groundwater

Monitoring at the Facility has shown that the contaminants are effectively being addressed by natural attenuation. Specifically, the extent of contamination in groundwater is not increasing and concentrations of contaminants are declining over time. Therefore, the proposed remedy for groundwater consists of monitored natural attenuation until drinking water standards are met and compliance with and maintenance of groundwater use restrictions at the Facility to prevent exposure to contaminants while levels remain above drinking water standards.

The Facility will be required to submit for EPA review and approval a groundwater monitoring plan that conforms to EPA RCRA Ground-Water Monitoring: Draft Technical Guidance November 1992. Upon EPA approval, the Facility will be required to implement the groundwater monitoring plan. 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 subject to public comment.

Under EPA's proposed remedy, some concentrations of contaminants remain in groundwater at the Facility above levels appropriate for residential uses. As a result, the proposed remedy requires the Facility to implement groundwater use restrictions through a permit, order, local ordinances, local zoning requirements and/or an Environmental Covenant that is enforceable against future land owners pursuant to the West Virginia Uniform Environmental Covenants Act, Chapter 22, Article 22.B, §§ 22-22B-1 through 22-22B-14 of the West Virginia Code (Environmental Covenant). 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.

The groundwater use restrictions shall contain the following:

1. Groundwater at the Facility shall not be used for any purpose other than the

Statement of Basis



monitoring activities required by WVDEQ and EPA. Unless it is (a) demonstrated to EPA that such use will not pose a threat to human health or the environment or adversely affect or interfere with the final remedy and (b) EPA provides prior written approval for such use;

2. The Property 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 that such wells are necessary to implement the final remedy and EPA provides prior written approval to install such wells;
4. Compliance with the EPA-approved groundwater monitoring program;
5. The then current owner shall submit an annual written certification to EPA documenting; (1) an evaluation of the effectiveness of the remedy reducing contaminant concentrations and restoring groundwater to MCLs and (2) that the use restrictions are in place and effective;
6. Within one month after any of the following events, the then current owner 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.
7. The then current owner shall allow the EPA, state, and/or their authorized agents and representatives, access to the Facility property to inspect and evaluate the continued effectiveness of the final remedy and if necessary, to conduct additional remediation to ensure the protection of the public health and safety and the environment based upon the final remedy.

#### 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 Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the proposed 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 (See AR: EPA Graphs of Natural Attenuation at Safety Kleen WV, April 2014). For this reason, the area of contaminated groundwater is contained. In addition, groundwater monitoring will continue until drinking water standards are met through attenuation. Until drinking water standards are met, the proposed remedy requires groundwater use restrictions to minimize the potential for human exposure to contamination and protect the integrity of the remedy.</p> <p>In addition, Wheeling, WV is on a public water system. The source of the drinking water is the Ohio River which is upstream of the Facility.</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 through attenuation. In addition, groundwater monitoring will continue until groundwater clean-up standards are met through attenuation. Until drinking water standards are met, the proposed remedy requires groundwater use restrictions to minimize the potential for human exposure to contamination and protect the integrity of the remedy.</p>
3) Remediating the Source of Releases	<p>In all proposed 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 CMS Report, the Facility met</p>

Statement of Basis

	<p>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.</p>
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**Section 6: Evaluation of Proposed Remedy (continued)**

Balancing Criteria	Evaluation
4) Long-term effectiveness	<p>The proposed remedy will maintain protection of human health and the environment over time by controlling exposure to the hazardous wastes remaining in groundwater until drinking water standards are met through attenuation. Groundwater is not used on the Facility for drinking water, and no down gradient users of off-site groundwater exist.</p> <p>Therefore, the proposed long term effectiveness of the remedy for the Facility will be assured by the continuation of the groundwater monitoring program, and implementation of groundwater use restrictions.</p>
5) Reduction of toxicity, mobility, or volume of the Hazardous Constituents	<p>The reduction of toxicity, mobility and volume of hazardous constituents at the Facility has already been achieved by attenuation, as demonstrated by the data from the groundwater monitoring. In addition, a groundwater monitoring program already in place will continue.</p>
6) Short-term effectiveness	<p>EPA's proposed 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.</p>
7) Implementability	<p>EPA's proposed remedy is readily implementable. All of the engineering components of proposed remedy, namely, the groundwater monitoring are already in place and operational. EPA does not anticipate any regulatory constraints in implementing its proposed remedy. EPA proposes to implement the groundwater use restrictions through an enforceable mechanism such as an Environmental Covenant.</p>

Statement of Basis

	EPA's proposed remedy is readily implementable.
8) Cost	EPA's proposed remedy is cost effective. The costs associated with this proposed remedy; the continuation of groundwater monitoring and the development, implementation and monitoring of groundwater use restrictions are estimated to be less than \$2000 per year.
9) Community Acceptance	EPA will evaluate Community acceptance of the proposed remedy during the public comment period, and it will be described in the Final Decision and Response to Comments.
10) State/Support Agency Acceptance	WVDEQ has reviewed and concurred with the proposed remedy for the Facility.

## Section 7: Financial Assurance

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EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed remedy at the Facility. The costs to implement groundwater use restrictions through orders or environmental covenants are minimal. The Facility has already provided the information necessary for EPA to issue an order. Also, given that EPA's proposed remedy does not require any further engineering actions to remediate soil, groundwater or indoor air contamination at this time and given that the costs of implementing groundwater use restrictions and the continuation of groundwater monitoring at the Facility will be minimal (less than \$2000 per year), EPA is proposing that no financial assurance be required.

## Section 8: Public Participation

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Interested persons are invited to comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. Comments may be submitted by mail, fax, e-mail, or phone to Mr. Leonard Hotham at the address listed below.

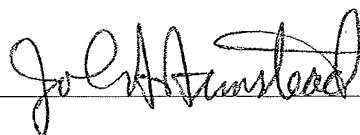
A public meeting will be held upon request. Requests for a public meeting should be made to Mr. Leonard Hotham at the address listed below. A meeting will not be scheduled unless one is requested.

The Administrative Record contains all the information considered by EPA for the proposed remedy at this Facility. The Administrative Record is available at the following location[s]:

U.S. EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103  
Contact: Mr. Leonard Hotham (3LC20)  
Phone: (215) 814-5778  
Fax: (215) 814 - 3113  
Email: [hotham.leonard@epa.gov](mailto:hotham.leonard@epa.gov)

Date: \_\_\_\_\_

5.15.14



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

Statement of Basis

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Safety Kleen Systems Inc.

May 2014  
Page 15

## **Section 9: Index to Administrative Record**

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Environmental Investigation Safety Kleen Systems, Wheeling, WV July 6, 1990

Interim Remediation Report, Safety Kleen Systems, Wheeling, West Virginia April 23, 1991

Expanded Environmental Investigation (EEI) Workplan, July 26, 1991

Expanded Environmental Investigation (EEI), Phase I Report Safety Kleen Systems Wheeling, West Virginia December, 1991

Expanded Environmental Investigation (EEI), Phase III Report Safety Kleen Systems Wheeling, West Virginia June 10, 1993

EPA Guidance for Developing Eco-SSLs November 2003

Final Site Characterization and Closure Groundwater Monitoring Report Safety Kleen Systems Wheeling, West Virginia September 5, 2006

Final RCRA Site Visit Report by EPA Region 3 for Safety Kleen Systems, February 16, 2010

Well Installation and Summary Assessment Report, Safety Kleen Wheeling Systems WV, November 2012

Final Groundwater Monitoring Report Safety Kleen Systems Wheeling WV, May 2013

Final Supplemental Site Assessment Report, Safety Kleen Systems Wheeling WV, October 2013

EPA Graphs of Natural Attenuation at Safety Kleen WV, April 2014

Statement of Basis

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Safety Kleen Systems Inc.

May 2014  
Page 16

Attachment B





**Attachment B to**  
**Safety Kleen Systems Inc., Wheeling WV FDRTC**

**EPA Response to Comments**

During the public comment period, EPA received a comment from Safety Kleen on the Statement of Basis. EPA's summary of Safety Kleen's comment and EPA's response to this comment is set forth below:

**Safety Kleen Comment (Summary):**

Why cite drinking water standards and residential usage? The site is industrial, the area is industrial, and the property will never be used for residential.

**EPA's Response**

The selected objective for groundwater is drinking water standards or Maximum Contaminant Levels (MCLs) pursuant to the Safe Drinking Water Act. This objective is consistent with EPA groundwater cleanup policies described in the "Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action April 2004" for Final Cleanup Goals, Groundwater Cleanup Levels, and Groundwater Use Designations.

For final cleanup goals, EPA expects final remedies to return usable ground waters to their maximum beneficial use or designated use, wherever practicable, within a timeframe that is reasonable given the particular circumstances of the facility. Groundwater cleanup levels for human health should typically be developed by using existing cleanup standards (e.g., drinking water standards) when they are available and when using them is protective of current and reasonably expected exposures. Even if no one is currently drinking the groundwater, the cleanup level should generally be based on drinking water use if the aquifer is considered by EPA or the State to be a reasonably expected future source of drinking water.

The West Virginia Code Chapter 22. Article 12. Groundwater Protection Act, §22-12-4 (b) sets goals for groundwater standards, and states that "... in no event shall the standards allow contaminants in groundwater to exceed the maximum contaminant levels adopted by the United States Environmental Protection Agency pursuant to the Safe Drinking Water Act."

Therefore, EPA has determined, consistent with the West Virginia Code, that the maximum beneficial use for this aquifer is drinking water, and EPA has selected groundwater cleanup levels to be drinking water standards or Maximum Contaminant Levels (MCLs) pursuant to the Safe Drinking Water Act. Therefore the remedy and Statement of Basis for Safety Kleen Wheeling, WV facility does not change.

