DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
Interim Final 2/5/99
RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)
Current Human Exposures Under Control

Facility Name: **Safety-Kleen Wheeling**
Facility Address: **10 Industrial Park, Wheeling, WV 26003**
Facility EPA ID #: **981 034 101**

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

☒ If yes - check here and continue with #2 below.

☐ If no - re-evaluate existing data, or

☐ If data are not available, skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

The Safety-Kleen facility is located at 10 Industrial Park, Wheeling, West Virginia. The facility is approximately 3,000 feet north of the intersection of U.S. Highway 250 and U.S. Highway 40 and is located in a heavy industrial area in northern Wheeling. Safety Kleen is currently bordered to the Northeast by Liquid Assets Disposal Incorporated, to the East by W. A. Wilson Incorporated, and to the west and northwest is Wheeling Creek, light commercial and residential areas, and the Ohio River approximately 2,100 feet in the same direction.

Safety Kleen is currently owned by Safety-Kleen Systems, Incorporated, of Plano, Texas, and is an accumulation point 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.

This facility has operated at the site since 1984 and 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.

Three above ground storage tanks (ASTs) are in use at the site. One 8,000-gallon AST is used for product storage. The other two are 15,000 gallons in capacity; one contains product, while the other stores spent mineral spirits. Another area contains two tanks for waste oil storage, one tank for storage of wastewater, and one tank for storage of ethylene glycol (closed in 1997). There is an enclosed shelter for storage of paint wastes in drums, a transfer station for less than ten-day storage, and a loading dock with a solvent return and fill station. All the tank storage areas have concrete diking for secondary containment; pavement surrounds the buildings and tank areas.

Most of Safety-Kleen's clients are small quantity generators of hazardous wastes. The wastes managed include spent mineral spirits, mineral spirits sludge, spent immersion cleaner, paint waste, dry cleaning waste, waste oil, and fluids recovery system wastes. Most of the wastes are collected at the client's facility, and transported to the Wheeling facility. After being stored for varying amounts of time, the wastes are transported to a Safety-Kleen recycle center or contract reclaimer.

Two spill events have been recorded at the site. In May 1990, Safety-Kleen discovered hydrocarbons discharging from a PVC pipe to an outfall located near the northern corner of the property. Soils were excavated downgradient of this area, as well as, around the sump near the return- and-fill and discharge line. An automated product recovery system was installed to recover any separate-phase mineral spirits that may accumulate within the backfilled sump area.

An Interim Remediation Report was prepared in April 1991, which described sump and discharge line removal, pipe capping, additional excavation, and sampling that took place related to this hydrocarbon release. On September 5, 2006, a Site Characterization and Closure Groundwater Monitoring Report was submitted to the WVDEP that described five subsurface investigations conducted in relation to the 1990 hydrocarbon release. The investigations concluded that soils in the hydrocarbon release area contained low-level concentrations that were significantly below the WVDEP DeMinimis Levels for Industrial Soils. Groundwater monitoring during the five investigations concluded that dissolved petroleum hydrocarbons and metals were decreasing; and that BTEX had not been detected in nine consecutive sampling events.

A second release was investigated during an August 24, 2006 WVDEP inspection. A small amount of diesel fuel leaked from a drum onto a portion of the site covered with asphalt. The drum was over packed, the spill was cleaned up, and the asphalt was repaired. No additional investigations were warranted for this spill.

At the request of the WVDEP, groundwater monitoring at the Safety Kleen facility began in 1993 to support the assessment and remediation of the May 1990 release. Beginning in January 2000 and concluded in April 2009, eight monitoring wells were sampled quarterly at the Safety Kleen facility. On May 29, 2009, Safety-Kleen submitted a Groundwater Monitoring Report to the WVDEP that covered the January 2000 through April 2009 sampling events. The Report noted monitoring wells at the Safety Kleen facility have historically been sampled at the request of the WVDEP in support of the assessment and closure of a historic release that occurred in 1990 and to assess regional groundwater quality in response to a reported release or impact at an adjacent property in late 1999. The Report also indicated that the groundwater quality data continued to demonstrate that the dissolved impacts either do not exist or occur sporadically at relatively low-levels and remain isolated in nature; and that concentrations, when detected, do not pose a significant risk to human health or the environment, nor does the data exhibit a widespread plume.

References Include:

Final RCRA Site Visit Report, Safety –Kleen Wheeling, EPA ID No. WVD981034101 dated February 16, 2010.

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives that are currently being used as Program measures for the Government Performance and Results Act of 1993,

GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater		X		Historical groundwater monitoring indicates that the dissolved impacts to the groundwater either do not exist or occur sporadically at relatively low-levels; remains isolated in nature; there is no plume; and that low-level concentrations, when detected, do not pose a significant risk to human health or the environment. Per WVDEP Site Visit Inspection Report dated 8/17/11, drinking water is provided via a public drinking water source.
Air (indoors)[2]		X		No known releases or issues with indoor air.
Surface Soil (e.g., <2 ft)		X		Historical subsurface investigations indicates low-level concentrations in soils that do not pose a significant risk to human health or the environment.
Surface Water		X		Releases that occurred in the 1990 and 2006, respectively, were not known to affect surface water.
Sediment		X		Releases that occurred in the 1990 and 2006, respectively, were not known to affect sediment.
Subsurf. Soil (e.g., >2 ft)		X		Historical subsurface investigations indicates contained low-level concentrations in soils that do not pose a significant risk to human health or the environment.
Air (outdoors)		X		No known releases or issues outdoor.

☒ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

☐ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

☐ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Subsurface investigations conducted in relation to a 1990 petroleum hydrocarbon release concluded that soils in the hydrocarbon release area contained low-level concentrations that were significantly below the WVDEP DeMinimis Levels for Industrial Soils. Groundwater monitoring during the five investigations concluded that dissolved petroleum hydrocarbons and metals were decreasing; and that BTEX had not been detected in nine consecutive sampling events. Per WVDEP Site Visit Inspection Report dated 8/17/11, drinking water is provided via a public drinking water source.

Groundwater monitoring at the Safety Kleen facility began in 1993 to support the assessment and remediation of the 1990 release. Beginning in January 2000 and concluding in April 2009, eight groundwater monitoring wells were sampled quarterly at the Safety Kleen facility. On May 29, 2009, Safety-Kleen submitted a Groundwater Monitoring Report to the WVDEP that covered the January 2000 through April 2009 sampling events. The Report indicated that the groundwater quality data continued to demonstrate that the dissolved impacts either do not exist or occur sporadically at relatively low-levels and remain isolated in nature. The Report also stated that concentrations, when detected, do not pose a significant risk to human health or the environment, nor does the data does not exhibit a widespread plume.

The nature and characteristic of the non-native fill materials that underlie the site has also been evaluated and it has be suggested that the composition of the fill material may be contributing to the on-going low-level impacts that have historically and sporadically been observed within groundwater at the site.

References Include:

Final RCRA Site Visit Report, Safety –Kleen Wheeling, EPA ID No. WVD981034101 dated February 16, 2010.
WVDEP Office of Environmental Remediation, RCRA Corrective Action Site Visit/Inspection Report dated 8/17/11.

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
~~Groundwater~~							
~~Air (indoors)~~							
~~Soil (surface, e.g., <2 ft)~~							
~~Surface Water~~							
~~Sediment~~							
~~Soil (subsurface e.g., >2 ft)~~							
~~Air (outdoors)~~							

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media, which are not "contaminated" as identified in #2 above.

2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations, they may be possible in some settings and should be added as necessary.

☐ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

☐ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

☐ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

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4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

☐ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

☐ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

☐ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

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5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

☐ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

☐ If no - (there are current exposures that can be reasonably expected to be "unacceptable") - continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

☐ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code.

Rationale and Reference(s):

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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI (event code CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

☒ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Safety-Kleen Wheeling facility, EPA ID # WVD 981 034 101, located at 10 Industrial Park, Wheeling, WV 26003. Specifically, this determination indicates that the migration of "contaminated" groundwater is under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

☐ NO - "Current Human Exposures" are NOT "Under Control."

☐ IN - More information is needed to make a determination.

Historical subsurface investigations indicates contained low-level concentrations in soils were significantly below the WVDEP DeMinimis Levels for Industrial Soils. Historical groundwater quality data demonstrates that dissolved impacts either do not exist or occur sporadically at relatively low-levels and remain isolated in nature; there is no widespread plume; and that low-level concentrations, when detected, do not pose a significant risk to human health or the environment. Per WVDEP Site Visit Inspection Report dated 8/17/11, drinking water is provided via a public drinking water source.

Completed by _____ Date 9/9/11
Russell H. Fish
Remedial Project Manager

Supervisor _____ Date 9/9/11
Luis Pizarro
Associate Director Office of Remediation
EPA Region 3

Locations where References may be found:

WVDEP Division of Land Restoration
601 57th Street S.E.
Charleston, WV 25304

US EPA Region III
Land and Chemicals Division
1650 Arch Street
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