

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

**RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)**

Current Human Exposures Under Control

Facility Name: Safety-Kleen Services Corporation
Facility Address: 98 North Harrison Ave, Congers, NY
Facility EPA ID #: NYD000708164

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

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 which 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).

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)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	<u>X</u>	___	___	<u>Most recent groundwater monitoring results show one well has levels slightly above the groundwater protection standards</u>
Air (indoors) ²	___	<u>X</u>	___	<u>Soil sampling shows contamination did not migrate under the buildings and groundwater monitoring shows levels are below groundwater protection standards</u>
Surface Soil (e.g., <2 ft)	___	<u>X</u>	___	<u>All contaminated surface soil was excavated</u>
Surface Water	___	<u>X</u>	___	<u>Closest surface water is over ½ mile away</u>
Sediment	___	<u>X</u>	___	<u>Not Applicable</u>
Subsurf. Soil (e.g., >2 ft)	___	<u>X</u>	___	<u>The remedial systems are designed to decontaminate soil and groundwater</u>
Air (outdoors)	___	<u>X</u>	___	<u>Discharges to the air when the remedial system is operating are permitted through the NYSDEC Division of Air</u>

___ 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.

X 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):

Facility Description and Release Sources:

This Safety-Kleen site is a ½ acre parcel located in Congers, NY at 98 North Harrison Avenue. The facility is situated within a residential neighborhood and is also bordered by railroad tracks to the east of the site. **Figure 1**, “Site Location Map”, depicts the location of the site and its surrounding area.

Safety-Kleen is an international service oriented company which primarily distributes and recycles used oil and spent solvents generated from automotive repair shops, painting operations, industrial maintenance shops and dry cleaning companies. Used oil and solvents from their customers are collected by Safety-Kleen representatives in permitted vehicles and brought to the facility for storage and consolidation prior to being transferred to a Safety-Kleen owned and operated recycling center. Materials handled by Safety-Kleen include; mineral spirits, used oil and various industrial grade solvents. Safety-Kleen operated their Congers distribution and collection facility at this site from 1970 to 1995. Operations utilized two underground storage tanks, a return and fill station and a drum storage warehouse. Operations were moved to another location in 1995 and the site is currently unoccupied. **Figure 2**, “Facility Layout”, depicts the layout of the site including; buildings, former tank locations, the former return and fill area and the drum storage areas.

In 1988, Safety-Kleen submitted a Part 373 Hazardous Waste Management Permit application. In 1992, Safety-Kleen withdrew their permit application and decided to close the facility. During closure, while removing the two underground storage tanks and decommissioning the return and fill station, it was discovered that one of the tanks, used to manage mineral spirits, had leaked and there were also visible releases from the return and fill station. Both tanks and the return and fill station were removed and as

much impacted soil as possible was excavated. To quickly address the tank release, a groundwater pump and treat system was installed as an interim corrective measure (ICM). All excavated areas were backfilled and paved over and a sitewide investigation to determine the total extent of residual contamination was required.

The sitewide sampling investigations included; a soil gas survey, several soil borings and the installation of multiple groundwater monitoring wells. Based upon data collected during the investigation and the pilot testing results of applicable remedial technologies, the final corrective measures implemented were soil vapor extraction (SVE) with air sparging in the return and fill station area and vacuum enhanced recovery (VER) in the tank area. The VER system replaced the pump and treat system originally installed in the tank release area. These systems were installed in two separate locations at the facility based upon the difference in the site's geology. Groundwater is being regularly monitored to assess each remedial system's effectiveness and chart changes groundwater contamination concentrations. The groundwater will be monitored until the groundwater protection standards at the site are met for a period of three consecutive years.

References:

1. Groundwater Monitoring Reports
2. Partial Closure Certification Report, dated March 10, 1992
3. Tank Closure Certification Report, dated June 12, 1992
4. Facility Closure Report, dated October 29, 1993
5. Statement of Basis, NYSDEC, dated June 1998

Footnotes:

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>
Air (indoors)							
Soil (surface, e.g., <2 ft)							
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft)	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>
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.

- X 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.)

- 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.

- 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):

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 (and 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 Systems** facility, EPA ID #**NYD000708164**, located at **98 North Harrison Ave., Congers, NY** 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.

Completed by:  Date: 11/30/99
Kent D. Johnson
Engineering Geologist

and

Supervisor:  Date: 11/30/99
Edward C. Miles
Engineering Geology Section Supervisor
NYSDEC

Locations where References may be found:

NYSDEC
Division of Solid and Hazardous Materials
50 Wolf Road
Albany, NY 12233-7252

Contact telephone and e-mail numbers:

Kent Johnson
(518)457-9255
E-Mail: kdjohnso@gw.dec.state.ny.us

Final Note: The Human Exposures EI is a Qualitative Screening of exposures and the determinations within this document should not be used as the sole basis for restricting the scope of more detailed (e.g., site-specific) assessments of risk.