

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRAInfo code (CA725)

Current Human Exposures Under Control

Facility Name:	<u>Safety-Kleen Systems Midland</u>
Facility Address:	<u>10607 W CR 127, Midland, Texas, 79711</u>
Facility EPA ID #:	<u>TXD981056690</u>

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, GPRRA). 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 RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo 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)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater		X		No history of incidents or corrective action at the site.
Air (indoors) ²		X		See above.
Surface Soil (e.g., <2 ft)		X		See above.
Surface Water		X		See above.
Sediment		X		See above.
Subsurf. Soil (e.g., >2 ft)		X		See above.
Air (outdoors)		X		See above.

- X
- 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):

Site Description:

The Midland Safety-Kleen (SK) facility is similar to other SK facilities in Texas. SK is both an industry that provides solvents to various industries and businesses, and a commercial storage and off-site processing facility which picks up solvents, waste paint, spent carburetor cleaning fluid and dry cleaning waste from their customers and transports the waste to their Midland facility for storage until it can be shipped to one of the company’s recycling facilities in either Denton, Texas and Hebron, Ohio. The SK facility in Midland uses two 10,000-gallon storage tanks (FAC 001 & FAC 002) and four container storage areas (FAC 004, 005, 006 & 008) for waste storage.

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) suggests 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.

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They have one additional permitted waste tank (FAC 003), which is actually a drum cleaning dumpster. In addition, SK has three product tanks: two 10,000-gallon ASTs used for clean solvent and a 750-gallon vat for storage of its Continued Use Program (CUP) solvent. The facility is also registered Universal Waste Handler and Used Oil Handler.

Eight waste streams are generated at the facility, six of which are hazardous wastes. The hazardous wastes include: non-halogenated solvent, petroleum contaminated sludges, solid debris (glass, metal, stones) generated from facility maintenance, liquid soaked debris (rags), aerosol cans and a one time shipment of corrosive liquid. The non-hazardous wastes include: vacuum truck heel sludge (Class I) and plant refuse (Class II). There are also eight transfer wastes found at the facility. They are: spent carburetor cleaner, dry cleaner waste, paint waste, paint thinner waste, waste aqueous brake cleaner, waste aqueous parts cleaner, batteries and fluorescent light bulbs. The transfer waste can be classified under universal waste, hazardous waste, or Class I waste. The paint wastes can be classified as either universal waste or hazardous waste depending on what the generator requests.

The Midland branch of SK is also a transporter of Hazardous, Class I and Universal Waste. They operate 13 service vans and five trucks (three box trucks, one oil truck and one vacuum truck) in the West Texas and Southeastern New Mexico area. Proper manifests accompany each load.

Regulatory History:

On August 16, 1990 SK Midland received its Class I Hazardous, Storage and Processing Off-site, Commercial permit from the TWC.

On October 8, 1993, SK Midland received authorization to store hazardous waste.

On October 30, 2002 SK Midland received a permit renewal.

SK Midland filed various permit modifications since acquiring its permit in 1990.

SK Midland was inspected approximately annually from 1990 to present, with the most recent inspection date on record March 23, 2005. SK Midland has experienced various moderate and minor violations. Currently there are no outstanding violations.

References:

- (1) Class I Hazardous, Storage and Processing Off-site, Commercial permit; TWC; dated August 16, 1990.
- (2) Authorization to Operate Under the RCRA; TWC; dated October 8, 1993.
- (3) Compliance Monitoring Inspection (CMI) letter, dated February 3, 1994
- (4) Compliance Evaluation Inspection (CEI) and Investigation Report letter, dated December 27, 1996
- (5) CEI and Investigation Report letter, dated December 18, 1997
- (6) CEI and Investigation Report, dated January 18, 2001
- (7) CEI, Investigation Report and TNRCC letter, dated January 30, 2002
- (8) SK letter, dated July 15, 2002
- (9) CEI and Investigation Report, dated February 5, 2003
- (10) CEI and Investigation Report, dated January 21, 2004
- (11) CEI, Investigation report and TCEQ letter, dated April 8, 2005
- (12) SK letter, dated April 4, 2005
- (13) Comprehensive Permitting Report, dated December 22, 2005
- (14) Comprehensive Corrective Action Report, dated December 28, 2005
- (15) Facility map

3. Are there **complete pathways** between “contamination” and human receptors such that exposures can be

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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):

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be

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

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“**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):

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

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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- 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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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.

Recommended Action Items: None.