

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRAInfo code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: Safety-Kleen Systems, Inc., Longview Branch
Facility Address: 202 Michael Place, Longview, Texas
Facility EPA ID #: TXD000747378

- 1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, 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?

X If yes - check here and continue with #2 below.
___ If no - re-evaluate existing data, or
___ If data are not available skip to #8 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 "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "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 "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

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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Facility Description

Safety-Kleen Systems, Inc., Longview Branch, is located at 202 Michael Street, in Longview, Texas. The facility is predominantly surrounded by industrial facilities. The facility's hazardous waste permit number is HW-50223 and has SWR number 67028. The facility is located in Gregg County at North Latitude 30' 28' 00" and West Longitude 94' 45' 29". The facility currently operates a commercial RCRA permitted storage and treatment facility that stores and treats waste from off-site. The waste managed at the site includes RCRA hazardous and non-hazardous class 1, class 2, and class 3. The site transports and stores spent solvents, dry cleaning waste, immersion cleaner, universal paint wastes, and used oils for recycling. Spent solvents are transported to the Safety-Kleen Denton facility for recycling. Safety-Kleen has two permitted container storage areas (CSAs) and four permitted tanks (References 1 and 2).

The two permitted storage areas are designated as CSA #3 and CSA #4. CSA # 3 is used to store dry cleaning waste, perchloroethylene, and liquid products. CSA # 4 is used to store flammable waste such as spent paint (D001, F003, and F005) and spent auto parts washer fluid (D001, D006, D008, D016, D027, D035, D039, D040). CSA # 3 is located inside the main building in the northeast corner. The area is surrounded by a chain link fence and the concrete floor is bermed and is coated with a chemical resistant coating. In addition, there is a sump with a grate in the floor that is designed to contain 10% of the volume of the storage area. CSA # 4 is located in a separate building located south of the main building. The building has a raised floor (approximately two feet) with a steel containment system under a grated floor (References 2, 3, and 4).

Tanks 1, 2, 5, and 7 are permitted to off-load and store the spent solvents for Safety-Kleen's retail solvent distribution and collection system. The spent solvents are transported to a Safety-Kleen Corporation reclamation center. Permitted Tanks 1 and 2 have capacities of 8,000 and 4,000 gallons, respectively. Both these tanks are used for storage and are piped together for a total capacity of 12,000 gallons. Permitted Tanks 5 and 7 each have a capacity of 375 gallons and are used to off load spent solvents from trucks. The waste is then piped to Tanks 1 and 2 (References 4, 5, 6, and 7). Tank 6, which also had a 375-gallon capacity, was closed in March 2000. This closure was certified by TCEQ (References 6 and 7).

Safety-Kleen also has four satellite accumulation areas associated with Tanks 5 and 7. In addition, Safety-Kleen has a transfer facility in a separate building located in southern part of the site. In accordance with RCRA, waste is not stored in this area for greater than 10 days. A concrete berm surrounds the transfer facility (References 2 and 4).

Rationale

The facility has two CSAs inside buildings and surrounded by berms. Therefore, the CSAs are not likely to pose an environmental problem to groundwater, surface water, sediments, or outside air. The four permitted tanks are also located within bermed structures for secondary containment. On April 15, 2004, TCEQ performed a Subpart BB inspection. Based on TCEQ's calculations, VOC concentration at the tank area was at 1,806 ppmv, well below the 10,000 ppmv limit specified in Subpart BB of the regulations (Reference 4).

Compliance History

Safety-Kleen has been in operation since 1987, with the first RCRA permit being issued on May 8, 1992. Since that time there has been several minor Class 1 or 2 Permit Modifications, such as updates to the Contingency Plan, personnel information, emergency information, and air calculations. A renewal application from Safety-Kleen was submitted on November 6, 2001 and issued March 4, 2003. Contained within the last renewal version of the permit were general sections which addressed Correction Action, and required the submission of a RCRA Facility Investigation report. While no further information is contained in the file regarding the RFI, the RCRA Comprehensive Permitting Report indicates that the permit had been issued with HSWA provisions but there was no need for corrective action (References 1 and 9).

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Files Referenced:

1. Texas Natural Resource Conservation Commission (TNRCC), Interoffice Memorandum from Bill O'Sullivan, Jr. re: Compliance Evaluation Inspection (CEI) on November 15, 1995. December 12, 1995.
2. TNRCC. Inspection Cover Sheet for RCRA Checklist (selected pages) for CEI on November 15, 1995. December 12, 1995
3. Safety-Kleen Systems, Inc. Letter to TNRCC re: Change in Notice of Registration. September 13, 2001.
4. Safety-Kleen Systems, Inc. Submittal to TNRCC of Annual Site Activity Report. January 17, 2002.
5. Safety-Kleen Systems, Inc. Tanks Table for TNRCC CEI on January 30, 2002.
6. Safety-Kleen Systems, Inc. Site Map for TNRCC CEI on January 30, 2002.
7. Safety-Kleen Systems, Inc. Closure Certification Report for Tank 6 for TNRCC CEI on January 30, 2002.
8. Texas Commission on Environment Quality (TCEQ). Permit HW-50223-001. March 04, 2003.
9. TCEQ. Investigation Report for March 30, 2004. April 15, 2004.
10. TCEQ. Investigation Report for April 15, 2004. May 27, 2004.
11. Safety-Kleen Systems, Inc. Site Map and Building Diagram for Subpart BB Investigation on April 15, 2004.
12. TERA, Inc. Integrated Assessment Used Solvent Storage System. September, 2004.
13. TCEQ. Comprehensive Permitting Report. December 22, 2005.
14. Safety-Kleen Systems, Inc. Notice of Registration for Subpart CC Investigation on December 29, 2005.
15. TCEQ. Report for Compliance Investigation on December 29, 2005. February 24, 2006.

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2. Is **groundwater** known or reasonably suspected to be “**contaminated**”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

- If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.
- If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”
- If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

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 appropriate “levels” (appropriate for the protection of the groundwater resource and its beneficial uses).

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3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”² as defined by the monitoring locations designated at the time of this determination)?

- If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”².
- If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.
- If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

² “existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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4. Does “contaminated” groundwater **discharge** into **surface water** bodies?

_____ If yes - continue after identifying potentially affected surface water bodies.

_____ If no - skip to #7 (and enter a “YE” status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater “contamination” does not enter surface water bodies.

_____ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

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5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

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6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR
2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

_____ If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s):

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the “existing area of contaminated groundwater?”

— If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the “existing area of groundwater contamination.”

— If no - enter “NO” status code in #8.

— If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

8. Check the appropriate RCRAInfo status codes for the Migration of Contaminated Groundwater

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Under Control EI (event code CA750), 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, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Safety Kleen Systems-Longview, facility, EPA ID #TXD000747378, located at 202 Michael Place, Longview, Texas. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.
- NO - Unacceptable migration of contaminated groundwater is observed
- IN - More information is needed to make a determination.

Completed by (signature) Eleanor T. Wehner Date 10/13/2011
(print) Eleanor T. Wehner
(title) CA Program Specialist (TCEQ)

Researched by (signature) June K Dreith Date May 18, 2006
(print) June Dreith
(title) TechLaw, Inc. (U.S. EPA Contractor)

Supervisor (signature) Geoffrey E. Mayer Date 10/20/11
(print) Geoffrey E. Mayer
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Locations where References may be found:

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