

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 30, 2013

To: File
Safety-Kleen Springfield Facility
ORD 000 712 067

From: Fredrick Moore *Fredrick Moore*
Permit Writer
Eastern Region Hazardous Waste Program

Subject: Re-Affirmation of Safety-Kleen Springfield's Environmental Indicator Status

The U.S. Environmental Protection Agency RCRAInfo database lists that for the Safety-Kleen Springfield facility that it received a Human Exposure Controlled – Yes (CA 725YE) on October 14, 2002, and a Release to Groundwater Controlled – Yes (CA 750YE) also on October 14, 2002. See Attachment 1. DEQ recently did a file search to find the 2002 Environmental Indicator documents but was unsuccessful and therefore could not be posted on the EPA Yosemite website page for Oregon corrective action sites.

This memo and its attachments purpose is to reaffirm that the 2002 EI's are justified and then this documentation can be posted on the website.

Attachment 2 are two new EI forms summarizing that based on DEQ hazardous waste and cleanup program documents that human exposure and groundwater controls are justified for the Safety-Kleen Springfield facility.

Attachment 3 is a DEQ public notice with a September 1, 2002, date that states "DEQ has concluded that there is no threat to human health and the environment because cleanup has been effective in reducing contaminants in soil to safe levels and because shallow groundwater is not used as a water source."

Attachment 4 is a letter DEQ issued to Safety-Kleen dated October 14, 2002, stating there is no further action needed at the Safety-Kleen Springfield facility.

Attachment 5 is a DEQ Project Status Report dated October 2002 describing the no further action at the Safety-Kleen Springfield site.

Attachment 6 is the DEQ letter dated October 21, 2002 which concurs that the Safety-Kleen Springfield facility attained a hazardous waste clean closure determination.

Safety-Kleen Springfield • ORD 000 712 067
September 30, 2013

Attachment 1

Safety-Kleen Springfield's RCRAInfo Corrective Action Event List Current as of
September 18, 2013

Attachment 2

Safety-Kleen Springfield's Documentation of Environmental Indicator Determinations for
Current Exposures Under Control and Migration of Contaminated Groundwater Under
Control

Attachment 3

DEQ notice with a stated publishing date of September 1, 2002, title "Cleanup Action
Completed and DEQ Recommends No Further Action at the Safety-Kleen Facility in
Springfield."

Attachment 4

DEQ letter dated October 14, 2002, sent to Safety-Kleen stating there in no further
action required at the facility.

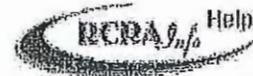
Attachment 5

DEQ Project Status Report dated October 2002

ATTACHMENT 1



Event List



SAFETY KLEEN SYSTEMS INC

SPRINGFIELD

ORD000712067

[Add New Event](#) [Show All Authorities](#) [Show All Areas](#)

20 Event(s) found.

Go To

Events								Authorities		Areas	
Seq.	Act Loc	Event Code	Sched Date Orig	Sched Date New	Actual Date	Agcy	Description	Count		Count	
1	OR	CA190	01/31/1995	01/31/1995			S INVESTIGATION REPORT RECEIVED	1	Show Authorities	1	Show Areas
1	OR	CA800YE			08/30/2007		S READY FOR ANTICIPATED USE DETERMINATION - READY FOR ANTICIPATED USE	1	Show Authorities	1	Show Areas
1	OR	CA999NF			10/21/2002		S CA PROCESS IS TERMINATED-NO FURTHER ACTION	2	Show Authorities	1	Show Areas
1	OR	CA550NR			10/14/2002		S REMEDY CONSTRUCTION-NO REMEDY CONSTRUCTED	1	Show Authorities	1	Show Areas
2	OR	CA750YE			10/14/2002		S RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE	2	Show Authorities	1	Show Areas
1	OR	CA375			10/14/2002		S INTERIM DECISION FOR NO FURTHER ACTION	1	Show Authorities	1	Show Areas
1	OR	CA725YE			10/14/2002		S HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE	2	Show Authorities	1	Show Areas
1	OR	CA400			10/14/2002		S REMEDY DECISION	1	Show Authorities	1	Show Areas
1	OR	CA725IN			02/15/2001		S HUMAN EXPOSURES CONTROLLED DETERMINATION-MORE INFORMATION NEEDED	1	Show Authorities	1	Show Areas
1	OR	CA750YE			02/15/2001		S RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE	1	Show Authorities	1	Show Areas
1	OR	CA200			04/23/1999		S INVESTIGATION COMPLETE	1	Show Authorities	1	Show Areas
1	OR	CA100			07/14/1998		S INVESTIGATION IMPOSITION	1	Show Authorities	1	Show Areas
1	OR	CA070YE			12/23/1997		S DETERMINATION OF NEED FOR AN INVESTIGATION- INVESTIGATION IS NECESSARY	1	Show Authorities	1	Show Areas
1	OR	CA050PA			12/23/1997		S RFA COMPLETED- ASSESSMENT WAS A PA-PLUS	1	Show Authorities	1	Show Areas

1	OR	CA500		05/15/1996	S	CMI WORKPLAN APPROVED	1	Show Authorities	1	Show Areas
3	OR	CA075ME		02/11/1993	E	CA PRIORITIZATION-MEDIUM CA PRIORITY	1	Show Authorities	1	Show Areas
2	OR	CA075ME		10/06/1992	E	CA PRIORITIZATION-MEDIUM CA PRIORITY	1	Show Authorities	1	Show Areas
1	OR	CA225YE		10/06/1992	E	STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO STABILIZATION	1	Show Authorities	1	Show Areas
1	OR	CA050PA	09/15/1992	09/30/1992	E	RFA COMPLETED-ASSESSMENT WAS A PA-PLUS	1	Show Authorities	1	Show Areas
1	OR	CA075ME		10/31/1991	E	CA PRIORITIZATION-MEDIUM CA PRIORITY	1	Show Authorities	1	Show Areas

URL: /rcrainfo/ca/CA_event_list.jsp

ATTACHMENT 2

ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA725)

Current Human Exposures Under Control

Facility Name: Safety-Kleen Springfield
Facility Address: 550 Shelley St.
Facility EPA ID #: ORD 000 712 067

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 not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

DEQ conducted a hazardous waste and cleanup file review for the Safety-Kleen Springfield facility to find the 2002 EI documentation. It was not found. However, documentation that the facility received a clean closure determination from the DEQ hazardous waste program, and a no further action from the DEQ cleanup program, was found. This new EI form and associated DEQ hazardous waste and cleanup programs documents will be attached to a memo and forwarded to EPA Region 10.

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).

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS Code (CA725)

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)?

"Contaminated" Media **Yes** **No** **?** **Rationale / Key Contaminants**

Groundwater		✓		
Air (indoors)		✓		
Soil (surface, e.g., <2 ft)		✓		
Surface Water		✓		
Sediment		✓		
Soil (subsurface e.g., >2 ft)		✓		
Air (outdoors)		✓		

¹ <http://www.targetproducts.com/UserContent/MSDS/English/Green%20Diamond%20Abrasive%20Products.PDF>

- 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):

Attached to the memorandum, of which this EI is part of, are DEQ hazardous waste and cleanup program document stating that the site was issued a clean closure determination and a no further action, respectively. These documents indicate there is no remaining contamination in any media above risk-based levels.

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.

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS Code (CA725)

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)

<u>"Contaminated" Media</u>	<u>Residents</u>	<u>Workers</u>	<u>Day-Care</u>	<u>Construction</u>	<u>Trespassers</u>	<u>Recreation</u>	<u>Food³</u>
Groundwater	No	No	No	No	No	No	No
Air (indoors)	No	No	No	No	No	No	No
Soil (surface, e.g., <2 ft)	No	No	No	No	No	No	No
Surface Water	No	No	No	No	No	No	No
Sediment	No	No	No	No	No	No	No
Soil (subsurface e.g., >2 ft)	No	No	No	No	No	No	No
Air (outdoors)	No	No	No	No	No	No	No

Instructions for Summary Exposure Pathway Evaluation Table:

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

Footnotes:

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

Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS Code (CA725)

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):

Footnotes:

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.

**Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS Code (CA725)**

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):

**Current Human Exposures Under Control
Environmental Indicator (EI) RCRIS Code (CA725)**

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 Springfield** facility, EPA ID **000712067**, located at **550 Shelley Street, Springfield, Oregon**, 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:

Fredrick Moore
(Signature)

9/30/2013
(Date)

Fredrick Moore
(Print Name)

Hazardous Waste Permit Writer
(Title)

Supervisor:

Leah Feldon
(Signature)

9.30.13
(Date)

Leah Feldon
(Print Name)

Acting Manager, Eastern Region Hazardous Waste Program
(Title)

Oregon Department of Environmental Quality
(EPA Region or State)

Locations where References may be found:

Eugene, Oregon
Bend, Oregon

Contact telephone and E-mail numbers:

Fredrick Moore
(Name)

541.633.2011
(Phone Number)

moore.fredrick@deq.state.or.us
(E-Mail)

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.

ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: Safety-Kleen Springfield
Facility Address: 550 Shelly Street
Facility EPA ID #: ORD 000 712 067

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?
- 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

DEQ conducted a hazardous waste and cleanup file review for the Safety-Kleen Springfield facility to find the 2002 EI documentation. It was not found. However, documentation that the facility received a clean closure determination from the DEQ hazardous waste program, and a no further action from the DEQ cleanup program, was found. This new EI form and associated DEQ hazardous waste and cleanup programs documents will be attached to a memo and forwarded to EPA Region 10.

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 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).

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)**

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):

Attached to the memorandum, of which this EI is part of, are DEQ hazardous waste and cleanup program document stating that the site was issued a clean closure determination and a no further action, respectively. These documents indicate there is no remaining contamination in any media above risk-based levels.

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

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)

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):

Footnotes:

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.

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)**

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):

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)

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 ecosystems 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 ecosystem.

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):

Footnotes:

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

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)

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 ecosystems 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 ecosystems), 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 ecosystems, 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 ecosystems.
- If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

Footnotes:

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 ecosystems.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)

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):

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS Code (CA750)

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater 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 Springfield facility, EPA ID ORD 000712967, located at 550 Shelley Street, Springfield, Oregon. 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 or expected.

IN - More information is needed to make a determination.

Completed By:

Fredrick Moore
(Signature)

9/30/2013
(Date)

Fredrick Moore
(Print Name)

Hazardous Waste Permit Writer
(Title)

Supervisor:

Leah Feldon
(Signature)

9.30.13
(Date)

Leah Feldon
(Print Name)

Acting Manager, Eastern Region Hazardous Waste Program
(Title)

Oregon Department of Environmental Quality
(EPA Region or State)

Locations where References may be found:

Eugene, Oregon
Bend, Oregon

Contact telephone and E-mail numbers:

Fredrick Moore
(Name)

541.633.2011
(Phone Number)

moore.fredrick@deq.state.or.us
(E-Mail)

ATTACHMENT 3

**CLEANUP ACTION COMPLETED AND DEQ RECOMMENDS NO FURTHER ACTION
AT THE SAFETY-KLEEN FACILITY IN SPRINGFIELD**

PUBLISHING DATE: September 1, 2002

PROJECT: Safety-Kleen Springfield (SKS) Facility

PROJECT LOCATION: 550 Shelley Road, Springfield, Lane County, Oregon

PROJECT ACTION: Oregon Department of Environmental Quality (DEQ) invites public comments from September 1, 2002 through October 1, 2002. DEQ will consider all comments before issuing a no further action determination and delisting the site from the Confirmed Release and Inventory lists.

HIGHLIGHTS: Since 1975, oil and solvents (hazardous wastes) from degreasing units were stored at Safety-Kleen. Contaminated soil and groundwater were found in 1992 during excavation of two underground storage tanks from the site. The underground tanks had been used to store mineral spirits (oil) from 1975 through 1992.

Soil, soil gas, and groundwater investigations performed by Safety-Kleen from 1991 through 1998 found that shallow groundwater and subsurface soils to about 14 feet below ground surface had been contaminated by releases of mineral spirits. The contaminated area appears to be limited to a small area around the former tanks. The site was placed on DEQ's Inventory and Confirmed Release Listings because of the hazardous substances released into the environment.

Soil and groundwater samples were collected to evaluate threats to human health. The contaminants in site soils were below levels that threaten human health. However, levels of some contaminants in groundwater were above safe levels.

In May 1996, Safety-Kleen began operating a treatment system to remove soil and groundwater contamination at the site. The treatment system was operated until December 1998. About 1,000 pounds of mineral spirits were removed by August 1998.

After the treatment system was turned off, Safety-Kleen continued to monitor groundwater for one year. Levels of contaminants associated with mineral spirits either were not present or were decreasing over time. Some groundwater contaminants (1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene) was above safe levels in a few monitoring wells.

Even though groundwater contamination near the tank removal has been above safe levels, DEQ has concluded that these levels do not threaten human health because the site is provided with city water and shallow groundwater is not used as a water source.

DEQ has concluded that there is no threat to human health and the environment because cleanup has been effective in reducing contaminants in soil to safe levels and because shallow groundwater is not used as a water source.

MORE INFORMATION: A file containing detailed information for the site is available for review in DEQ's Eugene office located at 1102 Lincoln St., Suite 210, Eugene, Oregon 97401. Questions

concerning this site should be directed to Mary Camarata at DEQ's Eugene office or by calling her at 541-686-7838, extension 259 or toll-free in Oregon at 1-800-844-8467 extension 259. A site summary report is available on the web at www.deq.state.or.us/wmc/cleanup/SKS.htm.

The TTY number for the hearing impaired is (541) 687-5603. Copies of written material in alternative format such as Braille, large print, or another language are available upon request.

ATTACHMENT 4



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Western Region Eugene Office
1102 Lincoln Street, Suite 210
Eugene, OR 97401
(541) 686-7838
FAX (541) 686-7551
TTY (541) 687-5603

October 14, 2002

Sharon Halper
Remediation Project Manager, Western Region
Safety-Kleen Corp.
PO Box 1471
Benicia, CA 94510

RE: No Further Action Determination
Safety-Kleen - Springfield
Lane County
Tax Lot 8100, #17032710
ECSI Site ID No. 1316

Dear Ms. Halper:

The Oregon Department of Environmental Quality (DEQ) has reviewed information regarding the impact to soil and groundwater from mineral spirits releases on the Safety-Kleen site (SKS) located at 500 Shelley Street, Springfield, Oregon. DEQ prepared a Staff Report dated August 15, 2002 that documents site conditions, environmental investigations, cleanup actions performed, and risks associated with residual contamination at the site. This letter briefly describes DEQ's no further action (NFA) determination at the Safety-Kleen site.

The SKS site has been a hazardous waste storage facility since 1975. Soil and groundwater contamination were discovered in 1992 during excavation activities to remove two underground storage tanks (USTs) from the site. The USTs were used to store virgin and spent mineral spirits at the facility since 1975.

Subsequent soil, soil-gas, and groundwater investigations performed through 1996 determined that shallow groundwater and subsurface soils (to approximately 14 feet below ground surface) had been impacted by mineral spirits. Also, chlorinated solvents associated with spent mineral spirits had been detected in several on-site and off-site monitoring wells. In May 1996, SKS began operating a remedial system to treat soil and groundwater at the site. The remedial system was operated through December 1998. Quarterly groundwater samples continued to be collected from December 1998 through March 2000 to monitor contaminant levels under static conditions.

The remedial system had removed approximately 1,000 pounds of mineral spirits and 5 pounds of volatile organic compounds by August 1998. Groundwater contamination had decreased over time from approximately 7,600 parts per billion (ppb) of mineral spirits in February 1991 to 99 ppb of mineral spirits in March 2000 in the most contaminated monitoring well (MW-3). In July

1998, SKS conducted a limited-focus remedial investigation to characterize the extent of soil and groundwater contamination on-site and off-site. (See attached map of site plan.) Residual soil and groundwater contamination was located on-site to the south and west of the UST's excavation area, and off-site to the north in Eugene Water and Electric Board's (EWEB's) right-of-way and to the west in the adjacent property.

DEQ evaluated the residual soil contamination against risk-based cleanup goals. Residual soil contamination from the UST's release is below residential and industrial soil risk-based cleanup goals. Therefore, soil contamination does not pose an unacceptable risk to human health and the environment.

DEQ evaluated the groundwater contamination against risk-based cleanup goals. Groundwater contamination was above the drinking water risk-based cleanup standards for 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene. However, DEQ does not consider it reasonably likely that shallow groundwater in the site or immediately nearby will be used as a drinking water source. DEQ further evaluated the volatilization of contaminants from groundwater into outdoor and indoor air, and contact with groundwater during excavation pathways as potential risks to workers. All contaminants detected in groundwater were below the risk-based cleanup goals for those pathways. Therefore, contaminants detected in shallow groundwater do not pose an unacceptable risk to human health and the environment.

DEQ provided public notice and opportunity for comment on the cleanup actions and NFA determination from September 1, 2002 through September 30, 2002 in accordance with Oregon Revised Statutes [ORS 465.320]. No comments were received by DEQ.

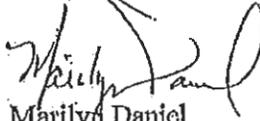
Based on the Administrative Record for the site, DEQ has determined that the Safety-Kleen site requires no further action under Oregon Environmental Cleanup Law, ORS 465.200 et seq., unless new or previously undisclosed information becomes available. We will update the Environmental Cleanup Site Information System (ECSI) database to reflect this decision.

The Safety-Kleen property was placed on DEQ's Inventory of sites (that have a confirmed release and need additional investigation) on March 1, 1999 as required by ORS 465.225. DEQ has determined the facility is now eligible for removal from the Inventory under ORS 465.230(1). We will update the Environmental Cleanup Site Information System (ECSI) database to reflect this decision.

Safety-Kleen Springfield
August 14, 2002
Page 3 of 3

DEQ appreciates your participation in our Voluntary Cleanup Program, including your responsiveness in addressing environmental conditions on this property. If you have questions regarding this letter, please contact me at (541) 686-7838, extension 239.

Sincerely,

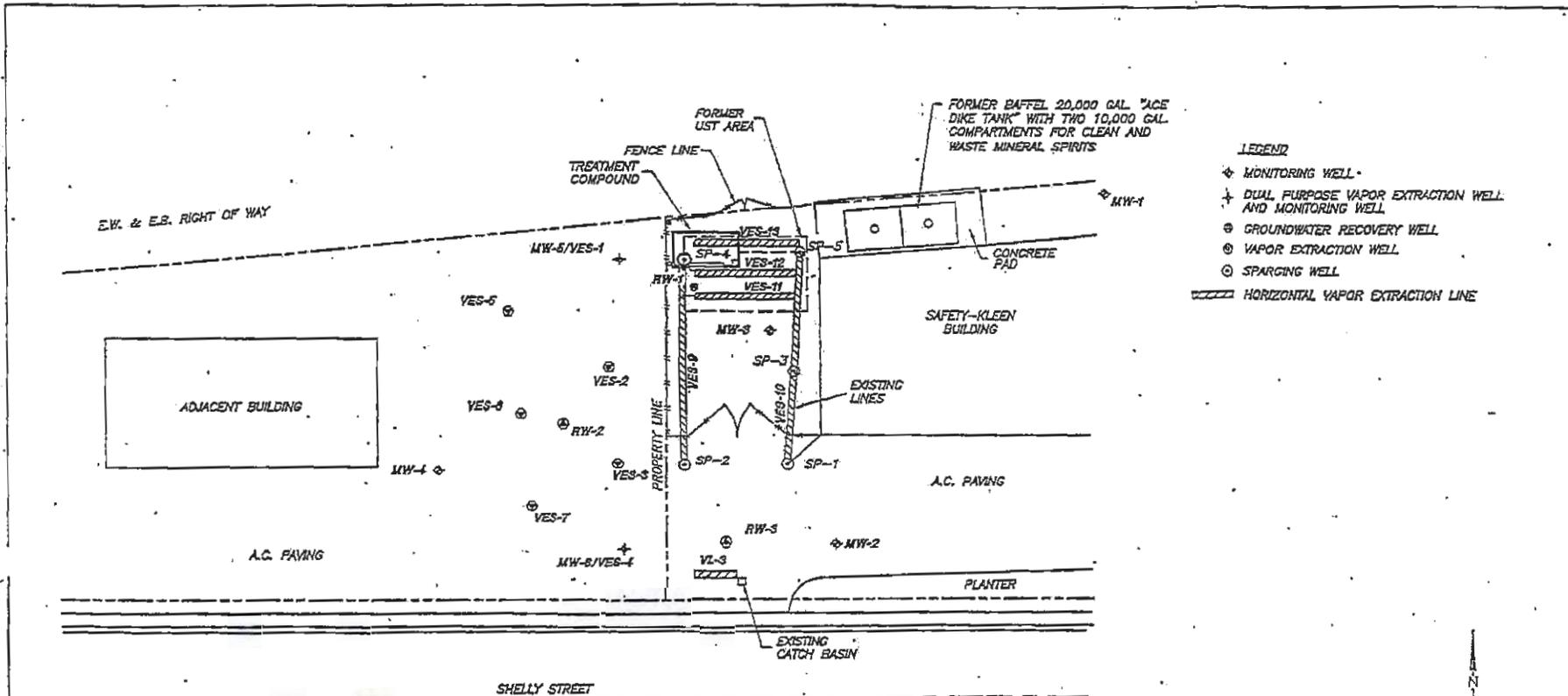


Marilyn Daniel
Western Region Cleanup Manager

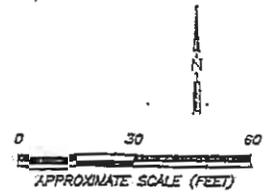
Enclosure

cc; Gary Olsen, Safety-Kleen, Springfield
Steve Luquire, Safety-Kleen, Sacramento
Doug McKay, McKay Land Development
Laurie Power, EWEB
Plumbers/Steamfitters Local 290
Mark Trewartha, SECOR
Mary Camarata, DEQ Project Manager





- LEGEND**
- ◇ MONITORING WELL
 - + DUAL PURPOSE VAPOR EXTRACTION WELL AND MONITORING WELL
 - ⊕ GROUNDWATER RECOVERY WELL
 - ⊙ VAPOR EXTRACTION WELL
 - ⊙ SPARGING WELL
 - ▨ HORIZONTAL VAPOR EXTRACTION LINE



SECOR International Incorporated OTS	SITE PLAN SAFETY-KLEEN 550 SHELLEY STREET SPRINGFIELD, OREGON	FIGURE: 1
	JOB#: 007.03817.000 APPR: PKC DWR: KRM DATE: 10/1/89	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

ATTACHMENT 5

SAFETY-KLEEN SPRINGFIELD

PROJECT STATUS REPORT

OVERVIEW

The Safety-Kleen Springfield site, a hazardous waste storage facility, is located at 550 Shelley Street in Springfield. Contaminated soil and groundwater were discovered in 1992, during excavation activities to remove two Underground Storage Tanks (USTs) from the site. The USTs had been used to store virgin and spent mineral spirits at the site since it opened in 1975.

Subsequent investigation activities performed by Safety-Kleen though 1996, determined that shallow groundwater and subsurface soils had been impacted by releases of mineral sprits. Chlorinated solvents associated with spent mineral spirits were detected in several on-site and off-site monitoring wells at concentrations above drinking water standards.

In May 1996, Safety-Kleen began operating a remediation system to treat soil and groundwater at the site. The remedial system was operated through December 1998. The remedial system removed approximately 1,000 pounds of mineral spirits and .5 pounds of volatile organic compounds by August 1998.

ENVIRONMENTAL CONCERNS

The primary concern at the site is exposure to groundwater impacted by chlorinated solvents. Although water is supplied to the site and surrounding area by the City of Springfield, the impacted aquifer is of high quality and highly productive. However, a recent water well survey completed in May 2000 showed there were no domestic water supply wells present within the surrounding area.

STATUS

In July 1998 Safety-Kleen implemented a focused investigation at the site and surrounding properties. Low concentrations of mineral spirits and chlorinated compounds common to the site were detected in a utility right-of-way owned by the Eugene Water and Electric Board (EWEB) that exists to the north of the site. The report was submitted to DEQ in January 1999.

Groundwater concentrations have been decreasing over time due to the remediation system to treat soil and groundwater contamination. Groundwater contamination had decrease from approximately 7,600 parts per billion (ppb) of mineral spirits in February 1991 to 99 ppb of mineral spirits in March 2000. In March 2000, groundwater concentrations of chlorinated solvents were less than regulatory limit except in a monitoring well west of the Safety-Kleen building. However, DEQ does not consider it reasonably likely that the shallow groundwater in the site or immediate nearby will be used as a drinking water source.

DEQ has evaluated the potential risks posed by residual contamination in soil and groundwater at the site and in off-site areas to human and ecological receptors. DEQ compared residual contamination in soil and groundwater to risk-based cleanup goals. The residual contamination was below the risk-based cleanup goals. DEQ issued a no further action determination for the site on October 14, 2002. *al*



State of Oregon
Department of
Environmental
Quality

Western Region
Eugene Office
Site Response
Program
Lane County
DEQ Project Manager:
M. Camarata
Phone: (541) 686-7838
Extension 257
www.deq.state.or.us

Updated:
October 2002



ATTACHMENT 6



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Western Region - Salem Office

750 Front St, NE, Ste. 120

Salem, OR 97301-1039

(503) 378-8240

(503) 378-3684 TTY

October 21, 2002

Sharon Halper
Safety Kleen Systems, Inc
P.O. Box 1471
Benecia, Ca 94510

FILE - HW
SAFETY KLEEN

RE: HW/TSD-Safety Kleen, Springfield
Located at 550 Shelley Street
Clean Closure of RCRA Units
Hazardous Waste
ORD 000712067

LAND

Dear Ms Halper:

On June 2, 2000, the Department received a Certification of Closure for four RCRA units at the Safety Kleen facility located at 550 Shelley Street in Springfield, Oregon. This certification was submitted in compliance with the terms of the approved Modified Closure Plan dated May 14, 1999 and Public Noticed on May 22, 1999.

At the time of this submittal, certain issues regarding contaminated soil in the area of the underground storage tank and the Return and Fill Station remained unresolved. The Department's response to the June 2, 2000 Report and Closure Certification by letter dated August 3, 2000 indicated that the Department had accepted the Closure Certification for the Flammable Storage Room, the Container Storage Area, and the Above Ground Storage Tank. Because of the unresolved issues, the August 3, 2002 letter stated that Clean Closure of the RCRA units would be withheld until the soil issues as set forth in Consent Order WMCSR-WR-98-11 Amended were resolved.

The Western Region Cleanup Program has issued a No Further Action (NFA) indicating satisfactory completion of the consent order dated October 14, 2002.

The Certification of Closure and the NFA complete the RCRA Closure of all of the RCRA units at Safety Kleen in Springfield. These units are hereby clean-closed, and no further closure or corrective activities are required.

The DEQ's (Department of Environmental Quality) approval of the clean closure of these regulated units is based on the data and information provided by Safety Kleen and their consultants. It is the responsibility of Safety Kleen, as it is for all residents of Oregon, to protect surface and ground waters of the State of Oregon now and in the future. Should any future contamination become evident, Safety Kleen may be responsible for future remediation.

Sharon Halper
Safety Kleen Systems, Inc.
October 21, 2002
Page 2

If you have any questions regarding this letter, please call me at (503) 378-8240, extension 227.

Sincerely,



Gil Hargreaves
Hazardous Waste Manager
Western Region-Salem Office

CH:ch
x:\jpetrov\SK clean close.doc

cc: Barbara Puchy, DEQ-LQ