

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

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

Current Human Exposures Under Control

Facility Name: Lansdale Finishers, Inc.
Facility Address: 21 Williams Place, Lansdale, PA 19446
Facility EPA ID #: PAD 002 371 581

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?

X 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 Controls" 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).

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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	_____	<u>X</u>	_____	_____
Air (indoors) ²	_____	<u>X</u>	_____	_____
Surface Soil (e.g., <2 ft)	_____	<u>X</u>	_____	_____
Surface Water	_____	_____	<u>X</u>	_____
Sediment	_____	_____	<u>X</u>	_____
Subsurface Soil (e.g., >2 ft)	_____	<u>X</u>	_____	_____
Air (outdoors)	_____	<u>X</u>	_____	_____

_____ If no (for all media) – skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient support 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.

_____ X If unknown (for any media) – skip to #6 and enter "IN" status code. (In order to present a more accurate picture of site conditions, the reviewer has chosen not to skip to #6.)

_____ Rationale and Reference(s):

Response to Question 2, Rational and Reference(s) is on following page.

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.

Response to Question 2
Rationale & Reference(s)

Groundwater

The only documented potential source for groundwater contamination is a former leaded gasoline UST. Groundwater was encountered during the removal of this tank. A grab sample indicated that benzene exceeded applicable standards. Two monitoring wells were installed and sampled to further assess groundwater impacts. Two rounds of sampling from these wells revealed no contaminants above applicable standards. It was concluded that contamination was restricted to the immediate area of the tank excavation. In October 2003, the facility received a relief of liability in relation to this UST closure. There are no other documented releases at the facility.

Air (Indoor and Outdoor)

The facility is currently not operational. There are no sources for either indoor or outdoor air contamination at the facility.

Soil (Surface and Subsurface)

The facility conducted soil sampling at the time of the UST closure. Sampling revealed minor impacts but no exceedances of applicable standards. Additional soil sampling was conducted in the area of the sump canal in the treatment area. Again, no exceedances of applicable standards were noted. Although soil sampling was not conducted site-wide, sampling efforts were concentrated on the most likely sources of site contamination. As no exceedances were noted in these areas, it is reasonable to assume that any unidentified contamination would likely not exceed applicable standards.

Surface Water and Sediment

No surface water or sediment sampling has been conducted at the site. There is an intermittent creek adjacent to the facility. Debris was noted in the intermittent creek during the EI site visit. Stormwater at the site also discharges to this creek.

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

Summary Exposure Pathway Evaluation Table

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

<u>"Contaminated Media"</u>	<u>Residents</u>	<u>Workers</u>	<u>Day-Care</u>	<u>Construction</u>	<u>Trespassers</u>	<u>Recreation</u>	<u>Food</u> ³
Groundwater	NA	NA	NA	NA	NA	NA	NA
Air (indoors)	NA	NA	NA	NA	NA	NA	NA
Soil (surface, e.g., <2 ft)	NA	NA	NA	NA	NA	NA	NA
Surface Water	Yes	No	No	Yes	Yes	No	No
Sediment	Yes	No	No	Yes	Yes	No	No
Soil (subsurface e.g., >2 ft)	NA	NA	NA	NA	NA	NA	NA
Air (outdoors)	NA	NA	NA	NA	NA	NA	NA

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.

 X 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):

Residents: The site is located in an area containing residential developments. As a result, residents could be exposed to potentially contaminated surface water or sediment.

Workers: The facility is currently not operational. There are no workers to be exposed to potentially contaminated surface water or sediment.

Day-Care: There are no known day-care facilities in the vicinity of the site.

Construction: Future construction in the area of the intermittent creek is possible. As a result, construction workers could be exposed to potentially contaminated surface water or sediment.

Trespassers: As access to the site is not restricted, trespassers could be exposed to potentially contaminated surface water or sediment.

Recreation/Food: The potentially impacted surface water and sediment is associated with an intermittent creek which does not support recreational activities or food sources.

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

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4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be "**significant**" (i.e., potentially⁴ "unacceptable" levels) 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."

 X

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):

Subsequent to the EI site visit, the facility's consultant determined that debris in the intermittent creek was not associated with operations at the site. Debris was noted as municipal waste from an upstream park. As a result, potentially contaminated surface water or sediment is not expected to be of an intensity that would constitute a "significant" exposure.

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

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

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) – continue and enter a "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 a "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): _____

