DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

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

Current Human Exposures Under Control

Facility Name: Colfax Treating Company
Facility Address: 74 Wadley Road, Pineville, Louisiana
Facility EPA ID #: LAD008184616, AI# 1399

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 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).

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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)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	X			See Below
Air (indoors) [2]		X		
Surface Soil (e.g., <2 ft)		X		
Surface Water		X		
Sediment		X		
Subsurf. Soil (e.g., >2ft)	X			See Below
Air (outdoors)		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.

__X__ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s): **The Colfax Treating Company (Colfax) facility, located in Pineville, Louisiana (Figure 1), maintains eight Solid Waste Management Units (SWMUs) / Areas of Concern (AOCs) requiring investigation pursuant to the RCRA Facility Investigation (RFI) and one closed regulated unit subject to groundwater monitoring and corrective action (Figure 2). Table 725-1 summarizes these SWMUs/AOCs and the regulated unit and their status.**

Colfax has investigated potential releases from SWMUs/AOCs during the RFI. On June 28, 2001, LDEQ approved the RFI and recommended No Further Action (NFA) for six of these SWMUs/AOCs (SWMUs Nos. 1, 2, 3, 4 &11 and AOC A), based on a comparison to applicable Risk Evaluation / Corrective Action Program (RECAP) Screening Levels. The SWMU 9 Area Biopile (formerly SWMUs Nos. 8, 9 & 10 and AOC D) is currently under operation as an "Interim Corrective Measure" (see References) to treat subsurface soils contaminated with creosote wood treating constituents (Polynuclear Aromatic Hydrocarbons (PAHs), Semi-Volatile Organic Compounds (SVOCs), and pentachlorophenol (PCP)). The extent of subsurface soil contamination in the SWMU 9 Biopile Area has been delineated in accordance with the requirements of the "Phase I RFI Workplan" and the "Phase II RFI Workplan". The results of these investigation are documented in the "Phase I RFI Report" and the "Phase II RFI Final Report" (see References). Figure 3 shows the extent of contamination in site soils; Figure 5 shows the extent of contamination in groundwater.

Groundwater investigation and monitoring activities for the closed regulated unit indicates a plume of groundwater contaminated with creosote wood treating constituents (Polynuclear Aromatic Hydrocarbons (PAHs), Semi-Volatile Organic Compounds (SVOCs), and pentachlorophenol (PCP)) has been released from the regulated unit. Groundwater is monitored semi-annually for wood-treating constituents and annually for the entire LAC 33:V.3325.Table 4 groundwater monitoring list, as required by the Post-Closure Permit for the regulated unit. Corrective Action, consisting of pumping and treatment of contaminated groundwater, is ongoing. The most recent available groundwater monitoring data, "2000 Annual Groundwater Report", indicates that the vertical and horizontal extent of groundwater contamination has been delineated (see References). No groundwater contamination exists beyond the established Point of Compliance.

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.

References:

"Post-Closure Permit for the Closed Impoundment – LAD008184616-PC1", January 22, 1991, 1990, LA Department of Environmental Quality and U.S. Environmental Protection Agency

"RFI Phase I Workplan", December 1991, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"Approval of RFI Phase I Workplan", March 13, 1992, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"RFI Phase I Report", March 12, 1993, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"RFI Phase I Report Revisions", November 28, 1994, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"Approval of RFI Phase I Report", September 30, 1994, U.S. Environmental Protection Agency.

"RFI Phase II Workplan", February 1995, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"RFI Phase II Workplan – NOD Response", August 1999, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"RFI Phase II Workplan Approval", September 15, 2000, LA Department of Environmental Quality.

"Proposal for SWMU 9 Biopile – Interim Corrective Measures", February 1995, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"Approval of SWMU 9 Biopile – Interim Corrective Measures", May 1999, LA Department of Environmental Quality.

"RFI Phase II Final Report" February 2001, prepared by Ball Engineering on behalf of Colfax Treating Company.

"Approval of RFI Phase II Final Report", June 28, 2001, LA Department of Environmental Quality.

"2000 Annual Groundwater Report", February 2001, prepared by Ball Engineering on behalf of Colfax Treating Company.

"2001 Semi-Annual Groundwater Report", July 2001, prepared by Ball Engineering on behalf of Colfax Treating Company.

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TABLE 725-1

SWMUs and Regulated Units
Colfax Treating Company
Pineville Facility

Unit	Status
SWMU 1	Recommended for NFA.
SWMU 2	Recommended for NFA.
SWMU 3	Recommended for NFA.
SWMU 4	Recommended for NFA.
SWMU 9 Biopile Area (consists of SWMUs 8, 9 & 10 and AOC D)	Operating as "Interim Corrective Measures".
SWMU 11 (White Woodwaste Landfill)	Recommended for NFA.
AOC A	Recommended for NFA.
Process Area SWMUs	To be addressed further upon final closure of regulated units.
Closed Regulated Unit	Unit closed in place; post-closure maintenance, groundwater monitoring, and corrective action ongoing.

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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)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	___	___	___	X			___
~~Air (indoors)~~	___	___	___				
~~Soil (surface, e.g., <2 ft)~~	___	___	___	___	___	___	___
~~Surface Water~~	___	___			___	___	___
~~Sediment~~	___	___			___	___	___
Soil (subsurface e.g., >2 ft)				X			___
~~Air (outdoors)~~	___	___	___	___	___		

Instructions for Summary Exposure Pathway Evaluation Table:

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

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

__X__ If no (pathways are not complete for any contaminated media-receptor combination) -skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

_____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s): **Areas of potential concern are restricted to in-plant use only; fences and other access controls limit access to these areas. Groundwater is not utilized at the site. Soil contamination in these areas is subsurface. In the event of excavation on-site, workers utilize personal protective equipment (PPE) to guard against potential exposures via exposure to contaminated soils and/or groundwater. (see References)**

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

References:

Post-Closure Permit for the Closed Impoundment – LAD008184616-PC1", January 22, 1991, 1990, LA Department of Environmental Quality and U.S. Environmental Protection Agency

"RFI Phase I Report", March 12, 1993, prepared by Ball Engineering on behalf of Colfax Creosoting Company.

"RFI Phase II Final Report" February 2001, prepared by Ball Engineering on behalf of Colfax Treating Company.

"2000 Annual Groundwater Report", February 2001, prepared by Ball Engineering on behalf of Colfax Treating Company.

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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

[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.

Rationale and Reference(s): **Not Applicable**

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): **Not Applicable**

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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__ 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 Colfax Treating Company facility, EPA ID # LAD008184616, AI#1399__, located at Pineville, Louisiana 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 (signature) _____ Date 6/29/2001
(print) Steve Archibald
(title) Geologist 2

Supervisor (signature) _____ Date 6/29/01
(print) Narendra Dave
(title) Geological Manager
(EPA Region or State) Louisiana DEQ

Locations where References may be found:

LDEQ Hazardous Waste Division Files
LDEQ Ground Water Protection Division Files
U.S. EPA – Region 6 Files
On-site facility records and correspondence files

Contact telephone and e-mail numbers

(name) Steve Archibald
(phone #) (318) 362-3048
(e-mail) stevena@DEQ.STATE.LA.US

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.