

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)
Current Human Exposures Under Control



RDMS DocID

109604

Facility Name: Former Kimberly Clark
Facility Address: 14 Benton Ave., Winslow, Maine
Facility EPA ID #: MED 001 095629

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

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

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, 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).

RCRA RECORDS CENTER
FACILITY Kimberly Clark
I.D. NO. MED001095629
FILE LOC. R-73
OTHER # 109604

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

x If no (for all media) - skip to #6, and enter “YE,” status code after providing or citing appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

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

 If unkn own (for any media) - skip to #6 and enter “IN” status code.

Rationale:

On September 3, 1998 KC’s consultant submitted to MEDEP an interim closure report documenting 43 items that were addressed as part of final site closure. A closure plan addendum was submitted to MEDEP in 1999 that identified 31 more items that needed to be addressed. In May 2001 the Draft Final Hazardous Waste Generator Closure Report was submitted that summarized all closure activities with the exception of the closure of several PCB areas. Closure activities included remediating floor surfaces that had been contaminated with lead, chromium, or mercury, sealing drains, removal of tanks, soil investigation, cleaning of storm drains, cleaning of AST and associated piping, and cleaning of many other areas and using wipe samples to analyze for RCRA metals. Areas covered included: 90 day hazardous waste storage areas, hazardous waste generation and accumulation areas, chemical handling and unloading areas, hazardous materials storage and transfer facilities, manufacturing and support equipment, and asbestos and lead paint areas. Not all asbestos and lead paint was removed but problem areas were remediated. KC’s subcontractor drained process piping throughout the facility that contained caustic, acid, bleach, and other hazardous material.

Nine transformers known to contain PCBs were removed by KC’s consultant. A number of leaks and stains lead to the concrete floor surfaces in the load centers being contaminated with PCBs. Areas outside of the load centers that were contaminated with PCBs received extensive remediation and were cleaned up to unrestricted use of 1ppm or less PCBs. The floors within the load centers were remediated in 2000 to the low occupancy standard of 25 milligrams per kilogram in TSCA. A Declaration of Covenants and Restrictions that limits the occupancy of the load centers was recorded in the Kennebec County Register of Deeds, Book 6119, Page 170, on December 14, 1999, with an amendment to the Declaration filed on November 12, 2002 recorded in Book 7138, Page 167. KC reported that over \$2.3 million was spent on closure activities. KC sold the mill to Kennebec River Development Park (KRDP)

and KRDP has accepted and will maintain in perpetuity the deed restriction. In accordance with the deed covenant, KRDP reports annually to MEDEP on the low occupancy status (contaminated areas are locked).

MEDEP's Ed Vigneault acknowledged the site's closure certification documents for the hazardous waste generator closure in a letter dated January 27, 2003.

In evaluating this site within the Corrective Action Program the former interim license outdoor hazardous waste storage area was cleaned and closed in 1990. Methylene Chloride was detected in rinse water in 1990, and the concrete slab was cleaned again until rinse samples were clean. No soil samples were collected at that time. In 2010 pore water samples along the Kennebec River near that former outdoor hazardous waste storage area and soil samples next to the former outdoor hazardous waste storage area were collected by MEDEP to confirm that this area was clean. All samples were reported by the Health and Environmental Testing Laboratory as non-detect for Volatile Organic Compounds. This information and all of the documentation generated during facility closure as summarized in this response is used to answer #2 above.

References:

Kimberly Clark Corp. letter dated November 30, 2001, "Completion of Hazardous Waste Closure at the Former Kimberly-Clark Tissue Company Facility in Winslow, Maine." (includes certification statement)

Harding ESE, Report "PCB Remediation Documentation Report, Load Center Exteriors," prepared for Kimberly-Clark Corporation, November 2001

Harding ESE Report "Draft Final Hazardous Waste Generator Closure Report Kimberly-Clark Tissue Company Facility, Winslow, Maine" prepared for Kimberly-Clark Corporation, May 2001

Health Environmental Testing Laboratory, July 27, 2010, Folder # F036560

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.

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

Instructions for Summary Exposure Pathway Evaluation Table

1. Strike-out specific Media including Human Receptors’ spaces for Media which are not “contaminated”) as identified in #2 above.
2. enter “yes” or “no” for potential “completeness” under each “Contaminated” Media-- Human Receptor combination (Pathway).

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

___ If no (pathways are not complete for any contaminated mediareceptor 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.)

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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

Rationale and Reference(s):

Reference:

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.

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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 “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be “unacceptable”)- continue and enter “NO” status code after providing a description of each potentially “unacceptable” exposure.

_____ If unknown (for any potentially “unacceptable” exposure)- continue and enter “IN” status code

Rationale and Reference(s):

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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):

X 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 former Kimberly Clark facility, EPA ID # MED 001 095629 , located at Winslow, Maine 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) H. Jackson Date 9/22/10
(print) Heather Jackson
(title) Environmental Specialist III

Supervisor (signature) Stacy A. Ladner Date 9/22/10
(print) Stacy A. Ladner
(title) Unit Manager
 State of Maine

Locations where References may be found:
Maine DEP File Room, Augusta, Maine

Contact telephone and e-mail numbers

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*Reviewed and Approved
[Signature], Chief
RCRA Corrective Action
USEPA, 11/30/10*

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