



RDMS DocID

109603

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)
Migration of Contaminated Groundwater Under Control****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 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**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).

RCRA RECORDS CENTER
FACILITY Kimberly Clark
I.D. NO. MED 001 095629
FILE LOC. R-13
OTHER #109603

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

_____ If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

 x 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:

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

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

_____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”².

_____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.

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

* Rationale and Reference(s):

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

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

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

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

Rationale and Reference(s).

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

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

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

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

Rationale and Reference(s):

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

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR

2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

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

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

Rationale and Reference(s):

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

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

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

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

_____ If no - enter "NO" status code in #8.

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

Rationale and Reference(s):

Reference:

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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).

 X

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 former Kimberly Clark facility, EPA ID # 001 095629, located at 14 Benton Ave., Winslow, Maine. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control. 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

(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-Maine

Locations where References may be found:
Maine DEP File Room, Augusta, Maine 04333

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*Reviewed and Approved
James [Signature], Chief
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