

US EPA ARCHIVE DOCUMENT

## DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

### RCRA Corrective Action

#### Environmental Indicator (EI) RCRIS code (CA750)

#### Migration of Contaminated Groundwater Under Control

Facility Name: Reese Products, Inc. (now Stateline Properties LLC)  
Facility Address: 51671 State Route 19, Elkhart, Indiana 46514  
Facility EPA ID #: IND 064 701 949

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?

  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 "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).

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2. Is groundwater known or reasonably suspected to be “contaminated”<sup>1</sup> 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.

References:

*Final Preliminary Assessment/Visual Site Inspection Report*, TechLaw, Inc., October 20, 2009.  
*Site Characterization Letter Report*, Booz Allen Hamilton, February 28, 2011.  
*Internal EPA e-mail from Bhooma Sundar to Christine McConaghy*, April 7, 2011.  
*Phase I Environmental Site Assessment*, Solar Testing Laboratories, Inc., January 31, 2003  
*Phase II Environmental Site Assessment*, Solar Testing Laboratories, Inc., June 23, 2003  
*PCB Delineation and Remediation*, Solar Testing Laboratories, Inc., August 15, 2003.  
*IDEM Public Water Supply Well Monitoring Reports* (various).

Rationale:

Reese Products manufactured trailer hitches for the RV industry. Operations were discontinued and the facility dismantled in 2003. D.J. Realty leased the property for use as a warehouse and subsequently transferred the property to Stateline Properties LLC in February 2006. One parcel was sold to Fred’s Transmission and space is leased to several tenants, including a small operation for molded polyurethane (faux wood products), tooling operations, and warehousing. Some space remains unused. The property is expected to remain industrial/commercial.

The PA/VSI report provides the facility history and the release potential at each former SWMU and AOC. Ten SWMUs and five AOCs from Reese operations were identified and evaluated. The report identifies only two SWMUs with documented releases of hazardous constituents. These are the container storage area and the scrap metal storage area.

The container storage area was a regulated hazardous waste management unit subject to closure. Hazardous constituents stored in the area include VOCs, barium, and chromium. The unit went through RCRA closure in accordance with the workplan approved by IDEM in 1997. Stained soil was removed and the concrete pad was decontaminated. No VOCs were detected above laboratory detection limits in remaining soil and barium and chromium were below site-specific cleanup levels. All releases to the environment were addressed in the RCRA

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<sup>1</sup> “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).

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closure and a Certification Report for the Container Storage Area (Heritage Environmental Services, 1/15/98) was submitted to IDEM. The unit was certified closed by IDEM on April 1, 1998.

The scrap metal storage area had PCB-contaminated surface soil that was removed in 1986 with further removal in 2003. EPA assessed the risk of PCBs remaining in soil (EPC of 2.59 ppm) in 2011 and concluded that there were no unacceptable risks posed to human health. Neither the container storage area or scrap metal storage area had documented releases to groundwater.

The release potential for other SWMUs and AOCs identified in the PA/VSI was determined to be low to moderate, with no additional investigations recommended. Most of the SWMUs and AOCs have been removed or are no longer used. The Site Characterization Letter Report does recommend to verify the integrity of sumps and drains within the building identified as SWMU 8 (a to h) and AOCs A and D.

Groundwater below the facility is of the St. Joseph Aquifer System. The aquifer is composed of fine to medium sand with zones of coarse sand and gravel. Numerous high capacity industrial, municipal, and irrigation wells obtain water from this aquifer with pumping capabilities of 100 to 1500 gpm. Groundwater samples were taken from the five on-site supply wells in June 2003. The five wells were used by Reese Products for potable, non-potable, and fire-protection purposes. Water samples were taken from the kitchenette, restroom, fire hydrant, and an interior pipe. No VOCs, petroleum hydrocarbons, or PCBs were detected above quantitation limits. Only trace levels of barium (0.03 mg/l) and lead (0.002 mg/l) were found and were below EPA MCLs.

The onsite public water supply system is subject to the IDEM Standardized Monitoring Framework II monitoring schedule for public water supplies (#2200943). IDEM required the testing because VOCs were used at the site and the well system is vulnerable to VOC contamination. Routine annual testing of VOCs in drinking water was performed at the facility drinking water well in 10/2/95, 11/30/98, 12/1/99, 12/30/00, and 2/5/03. No VOCs were detected (<0.5 ug/l) during the annual testing. Historically, lead and copper were found in drinking water exceeding action levels but corrective action was taken and exceedances were resolved. These metals are associated with piping corrosion. Lead and copper levels were confirmed to be acceptable in 2001 and 2002. In 2003, the public water supply ID number was deactivated due to facility closure.

Groundwater samples were also taken from the cavity of the former UST (SWMU 6) on the north side of the building during the Phase II Environmental Assessment in 2003. Groundwater was contacted at 16' bgs in brown coarse sand. No RCRA metals were detected above IDEM Voluntary Remediation Program default closure levels.

Based on the information and data provided above, groundwater at the facility is not known or suspected to be contaminated above protection levels.

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3. Has the **m**igration of contaminated groundwater **s**tabilized (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"<sup>2</sup> 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"<sup>2</sup>).

\_\_\_\_\_ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"<sup>2</sup>) - 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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<sup>2</sup> "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.

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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):

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5. Is the discharge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., the maximum concentration<sup>3</sup> 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 concentration<sup>3</sup> 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 concentration<sup>3</sup> 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 concentrations<sup>3</sup> 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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<sup>3</sup> As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.



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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 implemented<sup>4</sup>)?

\_\_\_\_\_ 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,<sup>5</sup> 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):

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<sup>4</sup> 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.

<sup>5</sup> 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):

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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 Reese Products facility, EPA ID # IND 064 701 949, located at 51671 State Route 19, Elkhart, Indiana 46514. Specifically, this determination indicates that groundwater is not "contaminated" above appropriately protective "levels". 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) Kenneth S. Bardo                      Date April 19, 2013  
                         (print)    Kenneth S. Bardo  
                         (title)    Environmental Scientist

Supervisor       (signature) Tammy Moore                      Date 5/16/13  
                         (print)    Tammy Moore  
                         (title)    Section Chief  
                         (EPA Region or State)    Region 5

Locations where References may be found:

RCRA 7<sup>th</sup> Floor File Room, EPA Region 5

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