

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION
Completed 9/26/2014
RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: M.A. Bruder & Sons, Inc
Facility Address: 52nd & Grays Ave, Philadelphia PA 19143
Facility EPA ID #: PAD 069020691

- I. 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	X			Contamination is below non-use aquifer levels
Air (indoors) ²	X			Contamination is below non-residential levels
Surface Soil (e.g., <2 ft)	X			Contamination is below non-residential levels
Surface Water		X		No releases
Sediment		X		No releases
Subsurface Soil (e.g., >2 ft)	X			Contamination is below non-residential levels
Air (outdoors)		X		Facility is inactive

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.

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):

See the following pages for response to Question 2, Rationale and Reference(s).

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.

Question 2, Current Human Exposures Under Control Response to Rationale and Reference(s)

The building currently is not occupied and there is an environmental covenant for the site.

Groundwater

The Data below is from the Act 2 Revised report submitted in November 2009.

Naphthalene was detected at 990 µg/l and 160 µg/l. The tapwater regional screening level is 0.17 µg/l (with a 10⁻⁶ risk level). With a 10⁻⁴ risk level is 170 µg/l. The groundwater on the site is not used due to an environmental covenant.

Air (indoors)

The Data below is from the Final Report Addendum for Act 2 submitted in August 2010. In 2010, two Indoor Air Quality monitoring sampling event occurred (April and May).

Ethylbenzene was detected at 37 ug/m³. The residential indoor air screening levels for Ethylbenzene is 0.97 ug/m³ (This is at a risk level of 10⁻⁶) and an industrial air screening levels is 4.9 (this is at a risk level of 10⁻⁶). With a risk level of 10⁻⁴, the residential indoor air screening level is 97 ug/m³ and an industrial air screening level of 490 ug/m³. Xylene was detected at 149 ug/m³. Xylene has a residential indoor air screening level of 100 ug/m³ and an industrial indoor air screening level of 440 ug/m³. Xylene is within the nonresidential screen levels.

There currently is an Environmental Covenant on the Facility that restricts the site to nonresidential.

Surface Soil (<2 ft.)

The Data below is from the Act 2 Revised report submitted in November 2009. There were 11 surface soil samples collected at the site in 2008.

Naphthalene (160 mg/kg) was in the SB-6. The regional screening level for Naphthalene in resident soil is 3.8 mg/kg and for industrial soil is 17 mg/kg (this is at a risk level of 10⁻⁶). With a risk level of 10⁻⁴ the regional screening level for Naphthalene in resident soil is 380 mg/kg and for industrial soil is 1700 mg/kg.

Subsurface soil

The Data below is from the Act 2 Revised report submitted in November 2009. There were nine subsurface soil samples collected at the site in 2008.

Iron was in SB-4 from 8-10 foot depth interval (100,000 mg/kg) and SB-9 at 6-8 foot depth interval (67,000 mg/kg). The regional screening level for iron is 55,000 mg/kg for residential soil and is 82,000 mg/kg for industrial soil. Iron is not associated with a release to the environment from facility operations and are likely the result of naturally occurring iron in the weathered schist underlying the site.

References:

“Final Report Former M.A. Bruder & Sons, Inc. Facility” Prepared by KU Resources, Inc for The Sherwin-Williams Company submitted to PADEP on September 2009, revised November 2009.

“Final Report Addendum Former M.A. Bruder & Sons, Inc. Facility” Prepared by KU Resources, Inc for The Sherwin-Williams Company submitted to PADEP on August 2010.

“Environmental Covenant” Submitted to Deed office by Sherwin Williams Company on August 2013.

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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 Food³

Groundwater - No

Air (indoors) - No

Soil (surface, e.g., <2 ft) - No

Soil (subsurface e.g., >2 ft) - No

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 _____ _____ _____	<p>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.</p> <p>If yes (pathways are complete for any "Contaminated" Media– Human Receptor combination) – continue after providing supporting explanation.</p> <p>If unknown (for any "Contaminated" Media– Human Receptor combination) – skip to #6 and enter "IN" status code.</p>
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Rationale and Reference(s): _____

The building currently is not being used.

Groundwater

Naphthalene was detected above regional screening tapwater level but the groundwater on the site is not used.

References:

“Final Report Former M.A. Bruder & Sons, Inc. Facility” Prepared by KU Resources, Inc for The Sherwin-Williams Company submitted to PADEP on September 2009, revised November 2009.

“Final Report Addendum Former M.A. Bruder & Sons, Inc. Facility” Prepared by KU Resources, Inc for The Sherwin-Williams Company submitted to PADEP on August 2010.

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

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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):

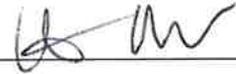
YE – Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Ingersoll-Rand Company facility, EPA ID# PAD 003 039 518 located at 101 North Main Street, Athens, PA 18810 under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

X

NO – "Current Human Exposures" are NOT "Under Control."

IN - More information is needed to make a determination.

Completed by:

(signature) 

Date 12/3/14

(print) Catheryn Blankenbiller

(title) RCRA RPM

Supervisor:

(signature) 

Date ~~12/7/14~~ 1/2/15

(print) Paul Gotthold

(title) Associate Director
Office of Pennsylvania Remediation

EPA Region 3

Locations where References may be found

Contact telephone and e-mail numbers:

(name) Catheryn Blankenbiller

(phone #) 215-814-3464

(e-mail) Blankenbiller.catheryn@epa.gov

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.

