DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) Current Human Exposures Under Control

Facility Name: Former Gryphin Coatings, Inc.Facility Address: 3501 Richmond St, Philadelphia, PA 19134Facility EPA ID #: PAD002269090

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?

| \bowtie | 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

The Former Gryphin Coatings, Inc. (Gryphin) facility is a 1.89-acre property is located on Richmond Street in Philadelphia, Pennsylvania. The facility was historically used by various paint manufacturing companies from the 1920s to 2008. Most of the property is concrete-paved and asphalt with no current structures. The facility ceased operations in 2008, and the buildings were demolished between 2010 and 2012. Raw materials were also removed during the demolition. Contaminated soil and underground storage tanks (USTs) were removed from the facility during December 2017 and October 2019. Currently, the property is unoccupied.

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 riskbased 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).

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 | <u>No</u> | <u>?</u> | Rationale / Key Contaminants |
|-----|-----------------|---|--|
| х | | | Benzene, Toluene, Xylene, 1,2,4 Dimethylbenzene, 1,2,4-trimethylbenzene, Ethylbenzene, 1,3,5- trimethylbenzene, VOCs |
| | х | | ······································ |
| | х | | |
| | х | | |
| | х | | |
| х | | | VOCs, BNAs, metals |
| | х | | |
| | <u>Yes</u> x | Yes No x x x x x x x x x x x x x x | Yes No ? x x x x x x x x x x x x x |

- \square 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.
- \boxtimes 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):

Nine monitoring wells were installed in April 2019 (designated MW-3 to MW-11) shown in Figure 2 of the report. Groundwater concentrations are below or slightly above the Ground Water Residential Statewide Health Standards (GWRSHS), less than 10 times the screening levels with one exception. Three rounds of groundwater data were collected in March 2019, June 2019, and October 2019. Below are the results for the October 2019 sampling:

MW-2

| Compound | GWRSHS | Concentration |
|------------------------|-----------|---------------|
| Benzene | 5 ppb | 47.4 ppb |
| Toluene | 1,000 ppb | 3,430 ppb |
| 1,2,4-trimethylbenzene | 15 ppb | 241 ppb |
| | | |

MW-6

| Compound | GWRSHS | Concentration |
|------------------------|--------|---------------|
| 1,2,4-trimethylbenzene | 15 ppb | 49.5 ppb |
| Benzene | 5 ppb | 2.54 ppb |

MW-10

| Compound | GWRSHS | Concentration |
|------------------------|-----------|---------------------------|
| Benzene | 5 ppb | ND But MDL/RL were 72 ppb |
| | | and 250 ppb |
| Toluene | 1,000 ppb | 83,600 ppb |
| Ethylbenzene | 700 ppb | 2,530 ppb |
| Total Xylenes | 1,000 ppb | 12,800 ppb |
| 1,2,4-trimethylbenzene | 15 ppb | 1,190 ppb |

MW-10 and to a lesser degree MW-6 demonstrated a trend of having volatile organic compounds (VOCs) slightly above the screening level, however the concentrations have demonstrated a steady decrease in every quarterly sampling. This concentration may be due to the proximity to the three solvent USTs that used to be in this area before being removed. Due of the three rounds was antimony in MW-11. It is likely an "outlier" because it has not been detected in any of the other wells. The site-wide soil assessment indicates that soils at 8 of the 15 boring locations are impacted with VOCs, BNA A vacuum truck The only metal detected above GWRSHS in any compounds, and/or metals at concentrations above GWRSHS. Soil impacts appear to be mostly limited to the smear zone sample was not collected from MW-5 due to the presence of free product in the well. Monitoring wells MW-2, MW-5, and below the water table, except for isolated areas where shallow soils are impacted with metals and BNA compounds. to the presence of free product in MW-5, a groundwater removal was conducted in October 2019. gallons from on-site drums. extracted 60 gallons of water as well as 500 ∢

Monitoring Well Map:



Reference(s):

1. Initial Site Characterization Report, Former Gryphin Coatings, Inc. Property, Prepared by Bison Environmental, LLC, dated January 2020

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.

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 | NO | NO | NO | NO | YES | NO | NO |
| Air (indoors) | | | | | | | |
| Soil (surface, e.g., <2 ft) | | | | | | | |
| Surface Water | | | | | | | |
| Sediment | | | | | | | |
| Soil (subsurface e.g., >2 ft) | NO | NO | NO | NO | YES | NO | NO |
| 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 media-receptor combination) skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or manmade, preventing a complete exposure pathway from each contaminated medium (e.g., use optional <u>Pathway Evaluation Work Sheet</u> 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):

Soils are impacted above the RSHS with VOCs, BNA compounds, and selected metals at various scattered locations and depths across the facility. Ground water is impacted above GWRSHS with VOCs at MW-2, MW-5, MW-6, and MW-10. Redevelopment is planned at the site (likely into non-residential use), and the possibility of direct contact and ingestion can be eliminated through capping the site with elements of the proposed redevelopment or at least two feet of clean fill material and placing a prohibition on groundwater use at the property through an environmental covenant. The area is serviced by public water, thereby eliminating the direct contact and ingestion exposure pathways for groundwater. In the case of soil to groundwater migration, this pathway will be further evaluated once additional soil sampling is completed. Based on current data, the remaining contaminants of concern do not appear to pose an unacceptable risk to ground water.

There are currently no structures on the property and thus the vapor intrusion pathway is incomplete. Once additional soil and ground water sampling is conducted, this migration pathway will be further evaluated and will take into consideration any planned redevelopment.

Reference(s):

1. Initial Site Characterization Report, Former Gryphin Coatings, Inc. Property, Prepared by Bison Environmental, LLC, dated January 2020

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

- 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):

NA

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.

| 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 <u>and</u> 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. | | |
| Rationa | le and R | eference(s): | | |

NA

- 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 (attach appropriate supporting documentation as well as a map of the facility).
 - \boxtimes 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 Gryphin Coatings, Inc. facility, EPA ID # PAD002269090, located at 3501 Richmond St, Philadelphia, PA 19134 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." \square
 - IN More information is needed to make a determination.

| Completed by | (signature) | Date <u>10/1/2022</u> |
|--------------|--|-----------------------|
| 1 | (print) Priscilla Ortiz Carrero (title) Physical Scientist | |
| Supervisor | (signature) (print) Alizabete Olhasso | Date 10/1/2022 |
| | (title) Chief, RCRA CA Branch No. 2 (EPA Region or State) US EPA Region 3 | |

Locations where References may be found:

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US EPA Region 3 Land, Chemicals and Redevelopment Division 4 Penn Center, 1600 JFK Blvd Philadelphia, PA 19103

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