

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action

Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: New York Wire Company

Facility Address: 829 Loucks Mill Road, York , Pennsylvania 17402

Facility EPA ID #: PAD098737737

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 #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 "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).

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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			See Rationale and References below
Air (indoors) ²		X		“
Surface Soil (e.g., <2 ft)		X		“
Surface Water		X		“
Sediment		X		“
Subsurf. Soil (e.g., >2 ft)		X		“
Air (outdoors)		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.
- 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):

Information applicable to the assessment of the human health environmental indicator for this facility was initially assembled in a Final Environmental Indicator Inspection Report for New York Wire Company dated 2002 as prepared by the Foster Wheeler Corporation (Foster Wheeler, 2002) for the PA Department of Environmental Protection (PADEP) and the US EPA. This report identified eleven (11) RCRA Solid Waste Management Units (SWMUs) and two Areas of Concern (AOCs) at the facility. Unless otherwise indicated, this document is the source of information provided in this EI determination.

Groundwater

Contamination associated with the former Metal Hydroxide Settling Basins (SWMU No. 7) at the facility has been investigated and remediated in accordance with protocols established under Pennsylvania’s Land Recycling and Environmental Remediation Standards Act (PA Act 2). PA Act 2 work addressing SWMU No. 7 is summarized in a Final Report for New York Wire Site, AECOM Technical Services, Inc., April 21, 2009. (The PA Department of Environmental Protection approved this report and administrative actions taken by New York Wire pursuant to PA Act 2 in a letter dated August 11, 2009). These PA Act 2 investigations have found that groundwater impacted by SWMU No. 7 contains manganese, boron and iron (hereafter referred to as Contaminant of Concern (COCs)) at levels which exceed Statewide Health Standards (SHS) established under PA Act 2. The SHS for iron and manganese correspond to secondary Maximum Contaminant Levels (MCLs) established under the federal Safe Drinking Water Act. There is no primary or secondary MCL for boron.

The only other SWMU or AOC determined by PADEP to have a release to groundwater was the Former UST Area AOC. Investigations at this AOC found elevated levels of Total Petroleum Hydrocarbons and trace levels of toluene in groundwater. However, PADEP subsequently determined the subject levels did not exceed any health-based criteria.

Sampling also indicates that volatile organic compounds (VOCs) are otherwise not present above detectable levels in groundwater at the facility (see Laboratory Results Summary by American Westech Laboratory Services for sampling conducted on October 26, 1999).

Air (indoors)

Available information indicates that subsurface contamination does not present a threat to indoor air quality.

Surface Soil

Hazardous constituents are known to have been released to soils at SWMU No. 3 (Former Oil Lagoon), SWMU No. 7 and the Buried Drum Removal Area AOC.

Per AECOM (2009), soil contamination at SWMU No.7 has been successfully remediated in accordance with PA Act 2 and COCs in soils at this unit no longer present an unacceptable risk under current or reasonable expected future land use.

Soil contamination at SWMU No.3 was addressed by a Consent Order and Agreement (COA) signed by former facility owner Ram's Head Wire and the PA Department of Environmental Resources (PADEP) in August 1983. Ram's Head Wire reported the successful closure of SWMU No.3 in accordance with subject COA in a letter from the Root Corporation to PADEP dated January 11, 1985. Performance of work in accordance with the COA confirmed that soils at this unit no longer presented an unacceptable risk under any conditions.

The Buried Drum Removal Area AOC was identified by New York Wire during excavation activities associated with the installation of a concrete pad for an above ground storage tank. Investigation and remediation activities to address impacted and potentially impacted soils were subsequently performed by New York Wire with PADEP oversight. In a letter dated October 21, 1999, PADEP subsequently determined that remediation at this unit had been successfully completed in accordance with PA Act 2 and that no further action was needed.

Surface Water

As part of work conducted in accordance with PA Act 2, modeling was conducted to assess whether releases to groundwater at SWMU No. 7 may present a threat to receptors in Codorus Creek, which is located approximately 750 downgradient of the facility property boundary (AECOM, 2009). The modeling predicted that groundwater contamination attributable to SWMU No. 7 should not present a threat to receptors in Codorus Creek. In this case, in accordance with PA Act 2, SWMU No.7 is not expected to impact surface water. In addition, there is no information which would suggest that other SWMUs or AOCs may be impacting surface water.

Sediment

Per discussion under Surface Water above, available information indicates that releases at the facility have had no adverse impacts on Codorus Creek.

Subsurface Soil

Per discussion under Surface Soils above, all soils at the facility have been successfully remediated and no further action is required.

Air (outdoors)

Available information does not suggest that there is contamination at the facility which may present threat to outdoor air quality.

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)

<u>“Contaminated” Media</u>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	No	No	No	No	No	No	No
Air (indoors)	NA	NA	NA	NA	NA	NA	NA
Soil (surface, e.g., <2 ft)	NA	NA	NA	NA	NA	NA	NA
Surface Water	NA	NA	NA	NA	NA	NA	NA
Sediment	NA	NA	NA	NA	NA	NA	NA
Soil (subsurface e.g., >2 ft)	NA	NA	NA	NA	NA	NA	NA
Air (outdoors)	NA	NA	NA	NA	NA	NA	NA

NA – Not Applicable based on Question #2.

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 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).
- 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):

Per work performed in accordance with PA Act 2, there is no current use of groundwater impacted by the facility (AECOM, 2009). To ensure that impacted groundwater is not used in the future, in accordance with PA Act 2, an environmental covenant being placed on the facility property will prohibit use of groundwater under the facility property and require the facility to monitor and report on any use of groundwater on two potentially impacted downgradient properties over a five year period (AECOM, 2009). The length of this reporting period is based on a trend analysis of

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groundwater contaminant levels which found that the subject levels should no longer present a potential threat in five years. If a new water supply well is identified during this period, the environmental covenant requires that NY Wire report this information to PADEP.

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):

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):

