

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: Millennium Rail Inc.
Facility Address: Berwind Drive, P.O. Box 349 Hollidaysburg, PA 16648
Facility EPA ID #: PAD990752321

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 #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 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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Facility Background

The site is located on Berwind Dr. in Hollidaysburg, Blair County, Pennsylvania on 65 acres of land. Brush Run flows along the northern border down through the eastern side of the site. The site was owned by the Berwind family from 1905 to June 1998 when the Hollidaysburg facility was sold to Millennium Rail, Inc. The Hollidaysburg facility has repaired and refurbished railcars since the 1950's. The facility has contracts with the petrochemical industry for the refurbishing of tank cars, hopper cars, box cars, and flat cars. The Berwind family began in the coal-mining industry in the early 1900's when it owned the Berwind-White Coal Company. The Hollidaysburg facility was set up to build and service coal cars. The coal car business lasted until World War II. During World War II, the plant was involved in the war effort manufacturing shell casings. During the 1950's the company expanded its operations to include the repair of train cars. Production processes at the site include cleaning and decontamination, mechanical and assembly work, metal fabrication, grit blasting, and lining and painting of rail cars. There is a chain-link fence that surrounds the entire plant facility. It is 6.5 feet high with 15 inches of barbed wire on top. There are also approx. 6 locking chain-link gates at specific locations. These gates are locked after the close of business each day. The facility and the old "factory housing" which are the closest houses to the facility are serviced by public water. The groundwater flow direction in the shallow aquifer zone beneath the site is not known, but is assumed to follow the local topography in a southeast direction from the site, towards Brush Run.

Areas of concern at the facility include a tank-cleaning pad, the sump and holding area, the wastewater pre-treatment plant, the drum storage area, the paint shop area, scrap metal areas, fabrication area, lining area, the grit blast area, and the former lagoon area. A variety of hazardous wastes are generated on the site. Millennium Rail is currently listed as a large quantity generator of hazardous waste. Company representatives and facility inspections have indicated that hazardous wastes are stored on-site for less than 90 days before shipment for off-site disposal.

Three lagoons (surface impoundments) were built on the site in the late 1970's for the aeration and settling of organic wastes generated by the car cleaning and decontamination process. An Order was given to the company by Pennsylvania Department of Environmental Resources in 1981, after the lagoons were found to be inadequately managed and maintained. The lagoons were subsequently removed in 1982. The wastewater from the lagoons was drained into six tank cars. The PVC liners were removed, along with the sludge and contaminated soil to six inches in depth, and disposed off-site. The lagoons were reclaimed under Pennsylvania Department of Environmental Resources in 1982. The remaining depressions were filled in with layers of limestone, clay, and shale, and capped with topsoil, graded, and grass was planted. An onsite wastewater pre-treatment plant was built to replace the lagoon in 1983. The pre-treatment permit to discharge to the Hollidaysburg Sewer Authority is conducted under Pennsylvania permit-by-rule regulations.

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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	—	<u>X</u>	—	<u>All contaminants are below screening levels</u>
Air (indoors) ²	—	<u>X</u>	—	<u>No evidence of release of contaminants to air</u>
Surface Soil (e.g., <2 ft)	—	<u>X</u>	—	<u>Former lagoons containing hazardous wastes have been closed. No other subsurface contamination encountered.</u>
Surface Water	—	<u>X</u>	—	<u>No evidence of release of contaminants to surface water</u>
Sediment	—	<u>X</u>	—	<u>No evidence of release of contaminants to surface water</u>
Subsurface Soil(e.g., >2 ft)	—	<u>X</u>	—	<u>Former lagoons containing hazardous wastes have been closed. No other subsurface contamination encountered.</u>
Air (outdoors)	—	<u>X</u>	—	<u>No evidence of release of contaminants to air</u>

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.

— 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):

Groundwater:

Three private wells were sampled as part of the investigation. The sample locations were chosen based on their proximity to the site. The toxicological evaluation indicates that no contaminants were detected above health-based criteria (MCLs - Maximum Contaminant Level) in the wells.

The site investigation shows that two wells on the facility property, a production well and a monitoring well were sampled. The report indicates that chloroform was present in both the production well and the monitoring well at concentrations of 2 ug/l and 6 ug/l respectively. The results for chloroform are well below the Pennsylvania MSC residential use aquifer level of 100 ug/l. Methyl Ethyl Ketone was also detected in the monitoring well at a concentration of 270 ug/l, but there is no drinking water standard at this time for this contaminant.

Reference the Environmental Priorities Initiative Site Inspection for Millennium Rail (Berwind Railway Service Company) for investigation of contaminants and associated levels in groundwater, and supporting documentation. Environmental Priorities Initiative Site Inspection for Millennium Rail (Berwind Railway Service Company)

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Surface and Subsurface Soil:

NUS conducted a site inspection of the facility under contract to the EPA on June 19, 1990. Soil sample analysis revealed low levels of petroleum related compounds and PCBs (up to 1,200 ug/kg, these values are below the EPA Risked Based Concentrations [RBC] for Industrial Soil of 1400 ug/kg). Petroleum related compounds, such as phenols (levels onsite were up to 250 ug/kg, below the EPA RBC value of 310,000 ug/kg), naphthalene (up to 1130 ug/kg, below the EPA RBC of 20,000 ug/kg), and phthalates (up to 10,000 ug/kg, below EPA RBC of 200,000 ug/kg) were identified in soil samples. Additional petroleum-related compounds, including alkyl benzene, alkenes, naphthalenes, PAHs, and unknown hydrocarbons were listed as Tentatively Identified Compounds (TICs) in most soil samples. Inorganic analyses of on-site soils revealed the levels of lead (602 mg/kg), antimony (129 mg/kg) and cadmium (18.2 mg/kg) are below the Pennsylvania Media Specific Concentration (MSC) of 1000 mg/kg for lead and the EPA Risked Based Concentrations of 410 mg/kg and 1000 mg/kg respectively for antimony and cadmium.

Surface Water:

Surface water samples from Brush Run revealed only elevated levels of aluminum and iron.

Sediment:

Sediment samples from Brush Run revealed low concentrations of PAHs. No other organic or inorganic contaminants were detected at elevated levels in any sediment sample.

References:

Environmental Priorities Initiative Site Inspection for Millennium Rail (Berwind Railway Service Company) NUS Corporation, August 6, 1991, prepared for U.S. Environmental Protection Agency, Philadelphia, Pennsylvania

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 Department 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 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 contaminates) 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
Groundwater							
Air (indoors)							
Soil (surface, e.g., <2 ft)							
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft)							
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 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. (Uncertainties are summarized below)

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” levels 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):

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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):

 X 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 Millennium Rail facility, EPA ID # PAD990752321, located at Berwind Drive, Hollidaysburg, Pennsylvania 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."

 IN - More information is needed to make a determination.

Completed by _____ Date _____
Grant Dufficy
RCRA Project Manager

Supervisor _____ Date _____
Paul Gotthold
PA Operations Branch Chief
EPA, Region III

Locations where References may be found:

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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.