

**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: Pittsburgh Industrial Plating  
Facility Address: 1 Herron Avenue Pittsburgh, PA 15202  
Facility EPA ID #: PAD087569620

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?
- 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?

  X   If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

       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.

**Rationale and Reference(s):**

The Pittsburgh Industrial Plating (PIP) facility operated from 1995 until 2002. No operations were active at the facility until 2006, when Sampson Morris purchased and redeveloped the property. From 1934 to 1995, the facility was operated by the Cyclops Corporation (Cyclops), a manufacturer of industrial metal building panels. The use of the property prior to its manufacturing history is not known. Currently, the facility maintains a mixture of office, flex space, light industrial, and warehouse/distribution.

Based on the description in the Preliminary Assessment (PA) prepared by NUS Corporation for the United States Environmental Protection Agency (USEPA) in 1989, Cyclops manufacturing included painting, roll forming, shearing, brake forming, and the miscellaneous fabrication of sheet metal into panels and associated accessory items. Spent roll wash (solvent) was produced as a result of these operations. The amount of waste produced was reduced by the installation of a still. Still bottoms (sludge) were temporarily stored on site until they were transported to an off-site treatment facility.

The facility was originally owned by Cyclops /E.G. Smith Construction Products from 1934, according to the 1989 PA. (Note: Other documents indicate the property was purchased by E.G. Smith Suppliers in 1955). Records indicate that Cyclops/E.G. Smith Construction Corporation Products Inc. was located at 100 Walls Street location off Ohio River Boulevard (Route 65). The facility was located at the intersection of Walls Street and Herron Avenue. E.G. Smith owned the property until 1993, when it was transferred to Smith Steelite. Cyclops was listed as a successor to E.G. Smith and Company following a merger in 1987. According to Allegheny County records, John Maneely Company purchased the facility in 1995 from Smith Steelite. John Maneely Company was doing business as PIP, which was located at 1 Herron Avenue. Other names identified for PIP included Wheatland Tube Company, which is under the parent company of John Maneely Company.

As Cyclops in 1989, the facility was located on approximately five acres of land with a main building, a paint and chemical storage building, and a parking area. Two waste generating areas were present. The first area was the still bottoms drum storage area in the paint storage building. This area was approximately 5 feet by 15 feet in size and it was characterized by concrete floors without floor drains. The second area was the distillation room located at the eastern portion of the main building. This area was approximately 10 feet by 15 feet in size and it was characterized by a still system utilizing 5 drums (one for still bottoms and four for solvents), concrete floors sloping toward the outside wall, a lack of floor drains, and a small concrete ditch running along the outside wall.

On November 15, 1980, Cyclops submitted a Part A Hazardous Waste Permit Application to USEPA. On December 22, 1980, the USEPA ID PAD087569620 was assigned. PIP, located at 1 Herron Avenue, was also assigned USEPA ID PAD987397148 in 1995. On May 21, 1997, PIP wished to retire the latter ID that was issued in 1995. However, both IDs are associated with the same location at 1 Herron Avenue. Under the RCRAInfo (online database) Facility Information for

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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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PAD087569620, PIP is still associated with that number as Large Quantity Generator (LQG) (active), although PIP does not own or operate the facility any longer and no waste generation activities currently exist at the location.

The facility operated under Allegheny County Air Permits during 1983. Specifics of the process are not known. The facility also discharged pretreated industrial wastewater to the publicly operated treatment works (POTW), Allegheny County Sanitary Authority (ALCOSAN). The facility did not operate under a National Pollutant Discharge Elimination System (NPDES) permit.

An aluminum pretreatment wash system was located in the southeastern end of the main building. The entire system was constructed on a concrete pad and utilized six tanks, a caustic soda wash, a rinse for each tone, a chrome/phosphate bath, a second rinse, a third rinse using phosphoric acid and a wetting agent, and a drying oven. The chrome/phosphate bath utilized a filter to treat discharge. The filter collected insoluble aluminum. The five rinse tanks each had a capacity of 1,000 gallons. The system's rinses were combined, sent through a sump, and discharged to a sanitary sewer.

The main facility building also contained an aluminum cutting mill, an aluminum roll-forming mill, a finishing line, a spray line (painting), and a finished product storage area. The second building, at the western end of site was used for the storage of paints and chemicals.

Based on a description provided by the plant engineer in 1997 during PIP operations, the facility operated a wastewater treatment system that consisted of a wastewater treatment system to treat electroplating wastewater and other plant water (boiler blow down and condensate returns). The system consisted of 3,000-gallon batches that included oxidation with ferrous chloride, raising the pH with lime, clarification/flocculation, and sludge settling. The treated wastewater was adjusted to a pH in the range of 8.0 to 9.5 and discharged to the local POTW (i.e., ALCOSAN).

Currently, the facility is owned and operated by Sampson Morris Group, of Monroeville, Pennsylvania, a commercial real estate development and property management organization that specializes in the purchase and repositioning of office and warehouse properties in western Pennsylvania. Sampson Morris purchased the facility in 2006 and converted prior industrial space to usable space for various tenants including the current tenants: McCarthy Tire Company, Pittsburgh Poison Cheerleading Studio, Game Fly (video game rental company), and RAS Appliance (refrigerator and appliance shipper).

At the time of a site visit conducted on June 10, 2010, the layout of the facility is as follows for the above-mentioned tenants. McCarthy Tire Company operates a tire facility in the former spray line and finished product storage area. Pittsburgh Poison Cheerleading Studio runs a competitive cheerleading studio in the former Aluminum Pretreatment washes area and the finishing line. RAS Appliance operates as a refrigerator and appliance shipper in the former aluminum roll forming mill and aluminum cutting room. Game Fly operates as a video game rental/shipping company in the former aluminum roll forming mill and aluminum cutting room. Since its purchase in 1993 of the former PIP Building 2 (paint storage), Schaffner Manufacturing Company owns and operates the building as storage for virgin products.

During renovations, the two office extension portions of the prior building have been demolished and are current parking areas. Additionally, a portion along the area on the eastern edge of the property where the former unused storage tank and part of the spray line was also demolished.

The 1989 PA identified and described the presence of five solid waste management units (SWMUs): SWMU 1 – Distillation Room Area, SWMU 2 – Aluminum Pretreatment Wash Area, SWMU 3 – Empty Drum Storage Area, SWMU 4 – Waste Oil Storage Tank, and SWMU 5 – Still Bottoms Drum Storage Area. No further action was suggested by their evaluation of releases or potential releases at that time (no releases reported and no evidence of releases or spills were evident). The facility is no longer in operation and these SWMUs were verified to be no longer active and their current use was noted during the June 10, 2010 site visit, as follows. The areas formerly occupied by SWMUs 1, 2, and 5 were renovated and are currently occupied by existing tenants. The areas formerly occupied by SWMUs 3 and 4 are currently unused.

One above-ground storage tank (AST) for waste oil (SWMU 4) was present at the facility. Available Pennsylvania Department of Environmental Protection (PADEP) and USEPA records indicate that the facility did not operate any other

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ASTs or underground storage tanks (USTs). At the time of the 2010 site visit, no tanks remain at the property. Two USTs were removed prior to 1987; no documents exist noting their removal. Subsequent investigations were conducted in order to characterize soil and groundwater in the vicinity of the former gasoline UST. Five soil borings and five monitoring wells were advanced and test pits were excavated in the former gasoline UST area. Stained soils exhibiting petroleum hydrocarbon odors were observed 4 feet below ground surface (bgs). Sample results for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX) showed TPH was non-detect with exception of one sample at 1,400 milligram per kilogram (mg/kg). BTEX was detected at relatively low concentrations below PADEP's generic cleanup standards at the time. BTEX was non-detect with exception of four soil samples and one monitoring well. Soil contamination is limited to an isolated area within and beneath the former gasoline UST. Benzene, toluene, ethylbenzene were detected in MW-4 and MW-5. Benzene was detected in MW-4 at 350 microgram per liter (ug/L) and MW-5 at 17 ug/L, exceeding the state limit of 5 ug/L. MW-3, located hydraulically downgradient of the source area and adjacent to Lowries Run, did not contain TPH or BTEX delineating the extent of petroleum compounds.

Available documentation indicates that benzene was detected at 265 ug/L in groundwater, most likely as a result of a release from a former gasoline UST. According to the Focused Phase II Assessment, groundwater contained concentrations below Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2) MSC with exception of benzene (265 ug/L) vs. the used aquifer MSC (5 ug/L).

Approximately 250 tons of soil in the former gasoline UST area were excavated, treated, and re-introduced into the excavation. The majority of the source area was removed, and on September 24, 1996, PADEP stated the requirements of the Consent Order and Agreement (CO&A) [Buyer/Seller Remediation Agreement] had been met. Note: In the letter, PADEP reserved the right to require additional remediation if future information indicates pollution/contamination not discovered or identified.

Two releases of hazardous wastes from the plating operation occurred in 1996. However, nearby soil sampling in these areas and stream sediment sampling in Lowries Run indicated that the chemicals analyzed were either less than or slightly above background concentrations. TPH concentrations in soil were as high as 7,320 and 3,410 mg/kg as a result of the releases.

The Facility has a monitoring well along the Ohio River.  
The well had Benzene below MCL. Due to the depth of the groundwater,  
groundwater is believed to flow to the Ohio River. CB 8/8/13

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3. Has the **migration** of contaminated groundwater **stabilized** (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)?

  X   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):**

As previously discussed, benzene was detected in groundwater (monitoring wells MW-4 and MW-5) at concentrations exceeding the state limit of 5 ug/L in the vicinity of the former gasoline UST. However, MW-3, located hydraulically downgradient of the source area and adjacent to Lowries Run, did not contain TPH or BTEX delineating the extent of petroleum compounds.

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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.

  X   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):**

The facility did not operate under a NPDES permit. While it is possible that the releases that occurred in 1996 from the neutralized acid and oil release area and the plating line rinse water release area may have discharged into Lowries Run, soil sampling events conducted in these two areas and stream sediment sampling indicated that the potential releases had an insignificant effect on the environment. There is no evidence to suggest that groundwater to surface water contamination exists.

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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):**

<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):**

<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):**

The majority of the source area was removed in 1995. On September 24, 1996, PADEP stated the requirements of the CO&A [Buyer/Seller Remediation Agreement] had been met. Note: In the letter, PADEP reserved the right to require additional remediation if future information indicates pollution/contamination not discovered or identified. Therefore, should site conditions change, an appropriate monitoring program should be instituted at the facility.

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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).

**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 **Pittsburgh Industrial Plating** facility,  
EPA ID # **PAD087569620**, located at **1 Herron Avenue Pittsburgh, PA 15202**.  
Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater". 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) *Elizabeth R. Bertha* Date 10/15/12  
(print) Elizabeth R. Bertha  
(title) Environmental Protection Specialist

Supervisor (signature) *Diane D. McDaniel* Date 10/15/12  
(print) Diane D. McDaniel, P.E.  
(title) Engineering Manager  
(EPA Region or State) PADEP - SWRP - Region 3

Locations where References may be found: *Paul [Signature]* 8/13/13

USEPA Region III  
Waste and Chemical Mgmt. Division  
1650 Arch Street  
Philadelphia, PA 19103

PADEP  
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400 Waterfront Drive  
Pittsburgh, PA 15212

Contact telephone and e-mail numbers

(name) \_\_\_\_\_  
(phone#) \_\_\_\_\_  
(e-mail) \_\_\_\_\_

Facility Name:  
EPA ID#  
City/State

Pittsburgh Industrial Plating  
PAD087569620  
Pittsburgh, PA 15202

### MIGRATION OF CONTAMINATED GROUNDWATER UNDER CONTROL (CA 750)

