

## 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: White Mop Wringer Company  
Facility Address: Riverside Drive, Fultonville, NY 12072  
Facility EPA ID #: NYD00206214

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 #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 "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?

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): FACILITY DESCRIPTION

**White Mop Wringer Company (WMW) is a manufacturing company which produces mop wringers, buckets, dust pans, mopping tanks and other receptacles. During manufacturing, products undergo steel cleaning, phosphatizing and zinc plating. On the southside of the facility, WMW had operated three surface impoundments. These surface impoundment were used to store treated wastewater from plating, tank cleaning, painting and steel phosphatizing operations prior to discharging it to a surface water drainage system under a NYSDEC SPDES permit. The surface impoundments were constructed and began operating in 1968. Discharge to the Surface Impoundments ceased on April 1, 1986. In 1989, the surface impoundments were closed in accordance with a NYSDEC approved closure plan. Closure included the removal of sludge and contaminated soil in and around the impoundments, and placement of fill and a cover system over the area.**

**Regulatory History**

**In March 1991, the NYSDEC issued a Hazardous Waste Management Permit (No. 4-2728-9/33-0) that included provisions for RCRA Corrective Action. The company conducted soil and sediment investigations as directed by the permit. The company also implemented a post-closure monitoring program for the surface impoundments. Based upon those investigations, the NYSDEC determined no further actions, other than the groundwater monitoring program, were required at the facility.**

**Data collected under the groundwater monitoring program indicate that the concentration of hazardous waste constituents in the groundwater downgradient of the facility has decreased substantially over time (See attached Figures). At present, constituent concentrations are near or below New York State’s groundwater quality standards.**

**In August 1999, the NYSDEC issued a draft Order on Consent that will replace the Hazardous Waste Management Permit (No. 4-2728-9/33-0) which expired in 1996. The Order, which requires White Mop to continue the monitoring program for an additional four years, will take effect in October 1999.**

**No additional Corrective Measures are contemplated at this time.**

<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?

  X   If yes - continue after identifying potentially affected surface water bodies.

       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):       

**Groundwater at the facility potentially discharges to a drainage ditch which was installed adjacent to the New York State Thruway along the southern boundary of the facility. Soil and water samples from the ditch indicate that the concentration of hazardous constituents are at or near background levels, and are below the regulatory levels of concern. Remediation of the ditch or containment of the slightly contaminated groundwater was not required.**

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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)?

  x   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): **See explanation above and accompanying Figures and Tables.**

<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 facility has previously been collecting monitoring data under the terms of a NYSDEC 6NYCRR Part 373 Post-Closure Permit. Recently, the NYSDEC replaced the permit( which had expired) with an Order on Consent that requires the facility to continue to monitor the area. The terms of the program are identified below.**

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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 **White Mop Wringer Company**

facility , EPA ID # **NYD00206214** , located at **Riverside Drive, Fultonville, NY 12072**. 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) \_\_\_\_\_ Date \_\_\_9/30/99\_\_\_  
(print) William E. Wertz, Ph.D. \_\_\_\_\_  
(title) Senior Engineering Geologist \_\_\_\_\_

Supervisor (signature) \_\_\_\_\_ Date \_\_\_9/30/99\_\_\_  
(print) Edward C. Miles \_\_\_\_\_  
(title) Chief, Engineering Geology Section \_\_\_\_\_  
(EPA Region or State) New York \_\_\_\_\_

Locations where References may be found:

NYSDEC

Division of Solid & Hazardous Materials

Rm 460

50 Wolf Road

Albany NY 12233

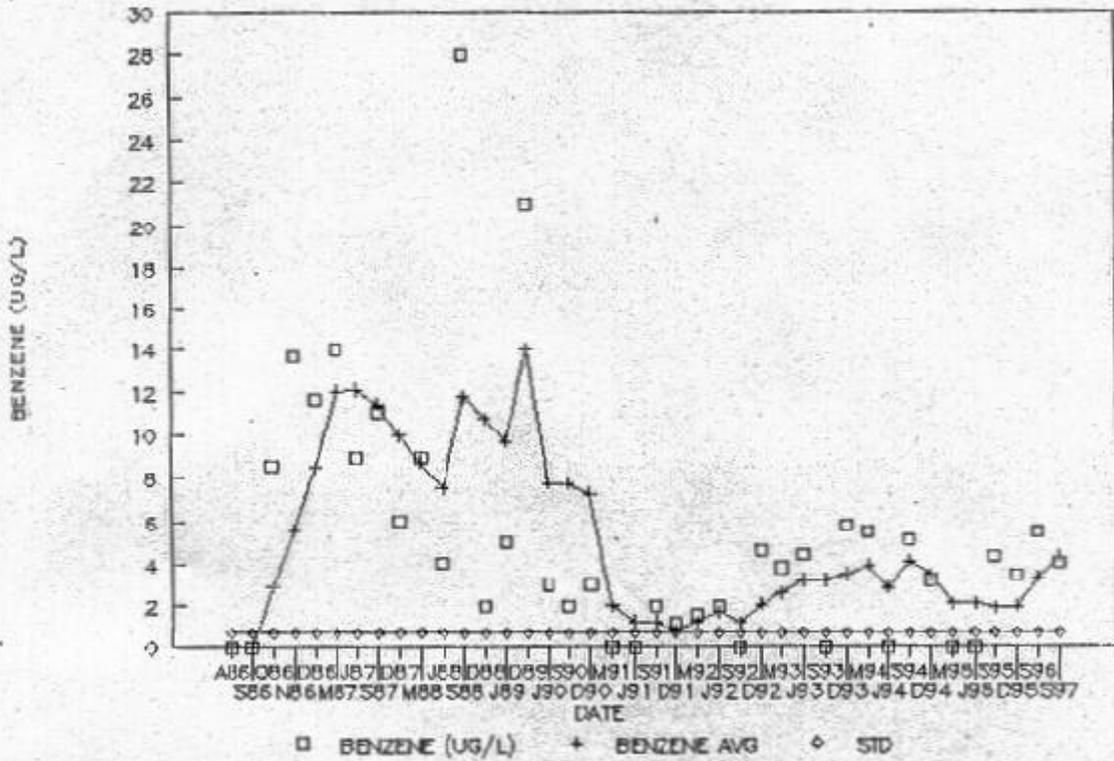
Contact telephone and e-mail numbers

(name) William E. Wertz

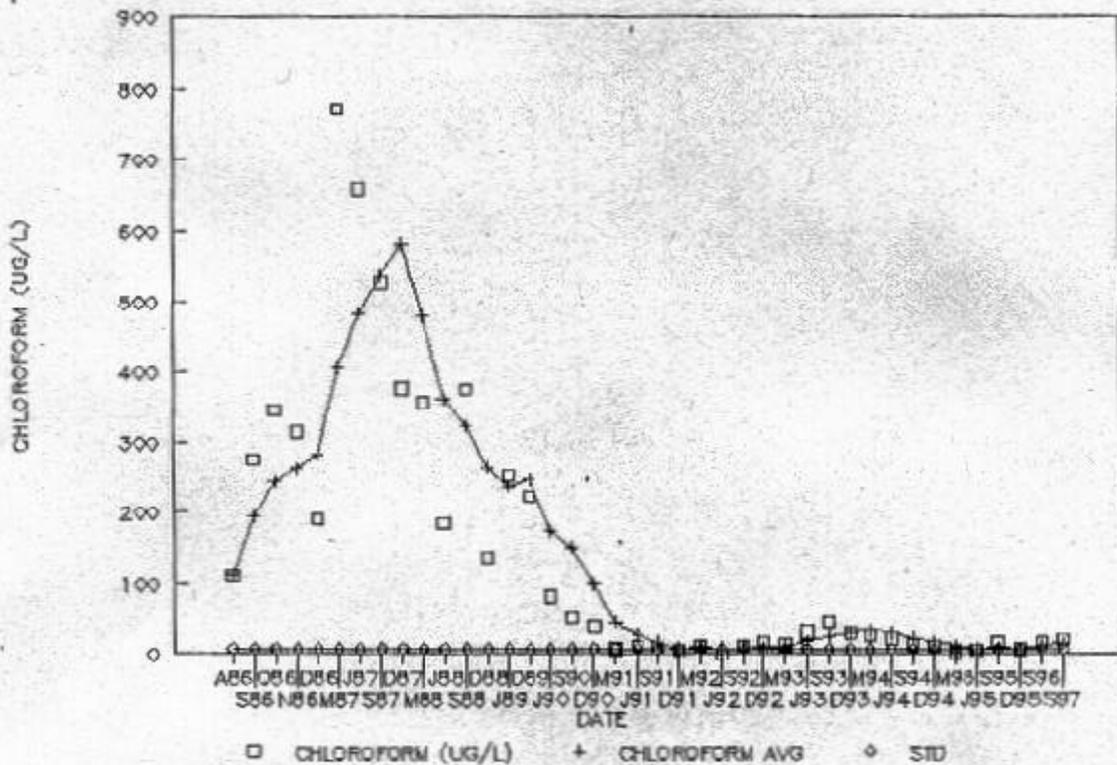
(phone #) (518) 457-9253

e-mail) [wewertz@gw.dec.state.ny.us](mailto:wewertz@gw.dec.state.ny.us)

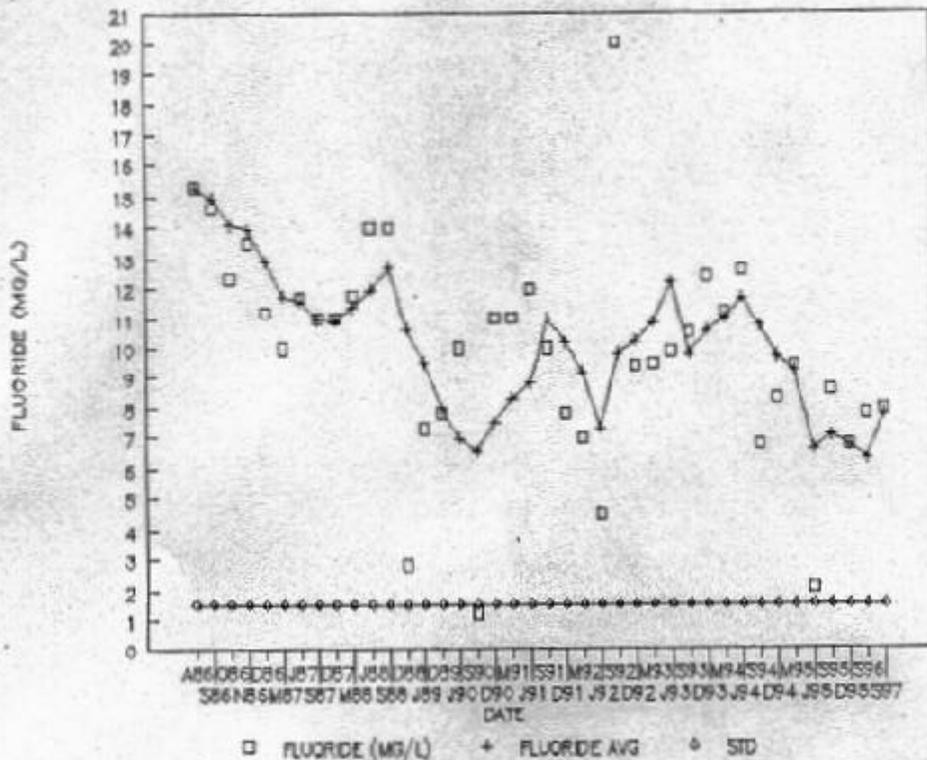
### WELL 5 TRENDS



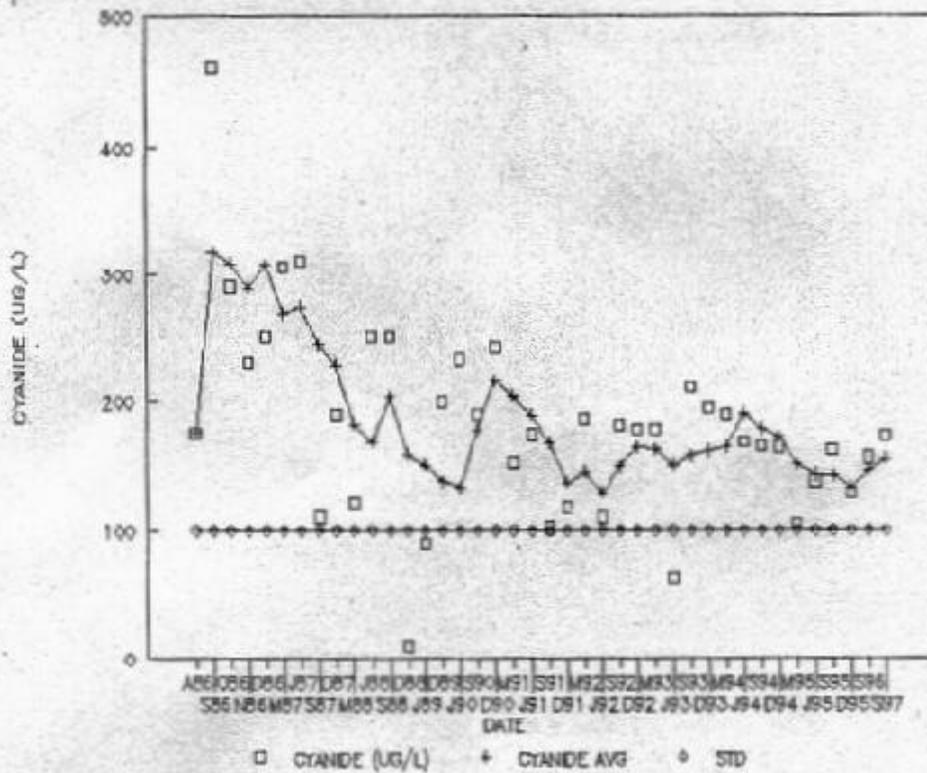
### WELL 5 TRENDS



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**WHITE MOP WRINGER**  
Creek Soil Samples

**Concentration:** SB-02-0.5 SB-02-2

**VOCs (ppb)**

|              |               |               |
|--------------|---------------|---------------|
| Chloroform   | <b>1.00 u</b> | <b>1.00 u</b> |
| Benzene      | <b>1.00 u</b> | <b>1.00 u</b> |
| Toluene      | <b>1.00 u</b> | <b>1.00 u</b> |
| Ethylbenzene | <b>1.00 u</b> | <b>1.00 u</b> |
| m,p-Xylene   | <b>1.00 u</b> | <b>1.00 u</b> |
| o-Xylene     | <b>1.00 u</b> | <b>1.00 u</b> |

**METALS**  
**(mg/kg)**

|               |        |       |
|---------------|--------|-------|
| Cadmium       | 0.42 U | 0.45U |
| Chromium      | 14.60  | 31.4  |
| Lead          | 6.3    | 13    |
| Zinc          | 141    | 323   |
| Total Cyanide | 19.60  | 4.6   |