

**FINAL DECISION AND
RESPONSE TO COMMENTS**

For

RECLAIMERS, INC.

KENDALLVILLE, INDIANA

U.S. EPA ID IND 984 894 527



July 2008

FINAL DECISION

**RECLAIMERS, INC.,
KENDALLVILLE, INDIANA
U.S. EPA ID IND 984 894 527**

Introduction

This *Final Decision and Response to Comments* is presented by the United States Environmental Protection Agency (U.S. EPA) for the Reclaimers, Inc. in Kendallville, Indiana. This document consists of the *Final Decision*, U.S. EPA's *Response to Comments* (Attachment I), updated *Index to the Administrative Record* (Attachment II), and previously issued *Statement of Basis* (Attachment III).

This *Final Decision* selects the final remedy to be implemented at the Reclaimers, Inc. facility, based on the Administrative Record and public comments. The *Statement of Basis* provides the U.S. EPA proposed remedy and was initially available for public review and comment from March 6, 2008 through April 21, 2008. U.S. EPA received two comments on the *Statement of Basis* during the public comment period. No public meeting was requested during the comment period, therefore none was held by U.S. EPA.

Facility Background

The Reclaimers, Inc. facility, located on U.S. Highway 6, 3.5 miles west of Kendallville, Indiana, recovers copper metal from insulated wire, cable, and plastic and has been operating at this site since May 1981. In October 1996, Philip Environmental Indiana Inc. (Philip Indiana), a wholly owned-subsiidiary of Philip Services Corp., acquired Reclaimers Inc. Philip Indiana merged into Reclaimers Inc. In February 1997, Reclaimers Inc. was merged into Philip Metals Recovery (U.S.A.) Inc. Philip Metals is the current owner and operator of the facility.

The facility operates three wire and cable chopping lines and services regional customers in the wire and cable, and telecommunications industries. The company use shredding, granulation and gravity separation in its process to recover copper from insulated wire and cable. The copper is sold to major brass smelters. The company originally hoped to recycle the waste that was left after removal of the copper, and began placing it in a pile in 1981. Due to slow development of technology and demand for recycled plastic, this pile (called the wire chop waste pile) continued to grow until 1991. At that time, it covered approximately 315,000 square feet in the south-southeast portion of the property. The pile was approximately 12 feet deep, for a total volume of 140,000 cubic yards or approximately 85,000,000 pounds. The waste pile included plastic particulates and filler material. These filler materials included paper, fiberglass, and other materials. Initially,

the plastic particulates and filler material were placed in two discrete adjacent piles. As stockpiling continued, space limitations precluded separation between the plastic particulates and filler material piles, resulting in one contiguous wire chop waste pile.

The waste in the wire chop pile was a hazardous waste because it exhibited the characteristic of toxicity due to the lead that it contained. As a result of a Waste Characterization Study performed in December 1990, the wire chop pile was identified as a D008 waste (lead), with an average lead concentration of 26.7 milligrams per liter. The company began on-site treatment of wire chop waste in 1991. The treatment process was designed to reduce the amount of leachable lead in the waste. The treated waste was loaded on trucks and shipped to a non-hazardous waste landfill. This allowed the company to continue recovering copper from insulated wire and cable without adding any more waste to the pile. However, the pile remained as a source of soil and groundwater contamination.

Interim Corrective Measures Already Completed

Several interim corrective measures were implemented to stabilize the site and provide early protection to human health and the environment. These included:

- Placement of a 20-mil Polyvinylchloride synthetic membrane cover on the wire chop waste pile to: control air dispersion of constituents; prevent precipitation from falling onto and leaching through the material; and prevent impact of stormwater run-off on the area.
- Installed temporary seep/run-off collection controls at the site. The system included a collection trench, sump and modifications to stormwater collection systems.
- Installed surface water diversion systems including soil berms and dikes.
- The wire chop fluff was stabilized using the patented WespHix process prior to disposal in an off-site landfill as a special waste.
- After remediation of the wire chop waste pile, surface water ponded in the backfilled excavation. The ponded water created reducing conditions in the area around monitoring well MW-03S resulting in naturally elevated arsenic levels. Groundwater sampling events have found arsenic concentrations above the cleanup objective for the site. A metal stabilization compound (MRC) manufactured by Regenesis, was used in a pilot study for the stabilization of the naturally occurring arsenic in the vicinity of MW-03S. The use of this compound proved unsuccessful.
- A storm water drain pipe was installed in July of 2007. The storm drain pipe will drain the ponded water in the vicinity of MW-03S to eliminate the reducing conditions.

In 1998, the company began treating the waste in the wire chop waste pile using the same process that it had been using for treating the newly generated waste. The treated waste was then shipped off-site for proper disposal. All of the wire chop waste has been shipped off-site. Under a state-approved closure plan, the contaminated soil beneath the wire chop

waste pile was excavated and shipped off-site for proper disposal. These activities have adequately addressed site soil contamination, and no further construction is required to address site soil contamination. The remaining soil meets residential cleanup standards. No evidence was found of site-related impact to sediment or surface water.

Assessment of the Facility

The response action documented in this *Final Decision* is necessary to protect human health and the environment.

Selected Remedy

U.S. EPA has selected the following remedial components as the final remedy to address contaminated soil, subsurface soil, and groundwater at the Reclaimers, Inc.'s facility:

1. No further action for site soils. Site soils were previously remediated to meet residential cleanup standards.
2. Based on information provided by Reclaimers Inc. to U.S. EPA and IDEM in a meeting held on April 4, 2008, the U.S. EPA and IDEM have decided to select a groundwater monitoring plan which is somewhat different from our proposal in the *Statement of Basis*. The *Statement of Basis* proposed groundwater monitoring of both shallow and deep aquifers for a minimum of eight quarters. The proposed groundwater cleanup standard for arsenic in both the shallow groundwater (non-drinking water source) and in the deep groundwater (Kendallville Aquifer) was the current default closure standard of 10 µg/l. Achieving that standard would allow a certificate for clean closure for groundwater to be accepted by Indiana Department of Environmental Management (IDEM).

The final groundwater monitoring plan that we are selecting today includes monitoring in the shallow perched aquifer only. Continued monitoring of the deeper Kendallville aquifer is not necessary because the company provided documentation that the deep groundwater already meets the default groundwater cleanup standards. The deeper Kendallville aquifer wells will be properly abandoned according to IDEM requirements.

In addition, we have determined that the 10µg/l cleanup standard is not appropriate for the shallow perched aquifer, because it can be not used as a source of drinking water. Under IDEM's Risk Integrated System of Closure (RISC) a default cleanup standard of 50µg/l was incorporated into the 2003 state-approved closure plan. Although the RISC default level changed from 50µg/l to 10µg/l in 2006, compliance with the new default standard is not necessary in this case, because the shallow perched aquifer can not be used as a source of drinking water. IDEM and U.S. EPA have determined that a non-default level is appropriate.

Under the selected groundwater monitoring plan, a minimum of one up-gradient and three down-gradient wells will be included. The program will include analysis of the full parameter list from the 2003 AGMS, as well as pH, conductivity, temperature, dissolved oxygen, oxygen reducing potential, turbidity, and total organic carbon.

Reclaimers Inc. will use the last two-groundwater monitoring results and two additional quarters of groundwater monitoring data to establish the current level of groundwater contamination. After that data has been collected, the company will propose a new risk-based non-default cleanup level (probably in the range of 100µg/l to 130µg/l) to IDEM. Under RISC, IDEM will set a site-specific risk-based non-default arsenic level to address the naturally occurring elevated arsenic concentrations in the perched aquifer in the vicinity of MW-03S. This new risk-based non-default level for arsenic will be the minimum level that the company must achieve in order to complete IDEM's clean closure requirements as well as U.S. EPA's final remedy. The company will conduct an additional four quarters of groundwater monitoring to determine whether the cleanup has achieved the risk-based standard.

As indicated in the *Statement of Basis*, if clean closure has not or cannot be attained at that time, a total of seven more years of groundwater monitoring (28 additional quarterly monitoring events) would be required by IDEM to evaluate the plume stability. Depending on the results of the groundwater monitoring, groundwater remediation may also be necessary. The company must continue providing assurances to IDEM to demonstrate that it has the financial resources to operate, maintain and monitor the selected remedy over the coming years.

Other aspects of the proposed remedy described in the *Statement of Basis* (Attachment III) remain unchanged, except for the clarifications noted in the *Response to Comments*. The *Index to the Administrative Record* has been updated to include all documents associated with this decision.

Public Participation Activities and Comments

A public comment period was held from March 6, 2008 through April 21, 2008. U.S. EPA received two comments on the *Statement of Basis* during the public comment period. No public meeting was requested during this time period. The first comment was from a concerned citizen asking to be added to the mailing list and who approved of the U.S. EPA's judgment on the remedy. They were added to the mailing list. The second comment letter was submitted by the company. It provided both general and specific comments. The U.S. EPA addressed the company's comments in the *Response to Comments*, which is found in Attachment I.

Administrative Record

The Administrative Record, upon which the final remedy was selected, is available at the Kendallville Public Library, Kendallville, Indiana, and the 7th Floor Records Center at the

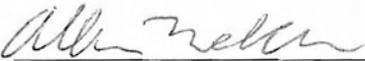
U.S. EPA, Region 5 office, Chicago, Illinois. Attachment II identifies the documents contained within the Administrative Record.

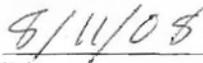
Future Actions

During the remedy implementation period, U.S. EPA will provide further information to the public as appropriate and upon request.

Declarations

Based on the Administrative Record compiled for this corrective action, U.S. EPA has determined that the selected remedy for the Reclaimers, Inc. facility is appropriate and protective of human health and the environment.


for Margaret M. Guerriero, Director
Land and Chemicals Division
U.S. EPA Region 5


Date

Attachments (3)

IN THE MATTER OF:

**RECLAIMERS, INC.,
KENDALLVILLE, INDIANA
U.S. EPA ID IND 984 894 527**

ATTACHMENT I

Response to Comments

Response to Comments

Comment: We would like to be added to the mailing list for Reclaimers, Inc. Should there be any public meetings or hearings regarding this company, we wish to be informed of the dates and times. We have read the proposed clean up guidelines. We will trust the judgment and monitoring of the EPA to keep our community safe.

U.S. EPA Response: You have been added to the mailing list.

Comment: PSC Metals, Philip Environmental Services Corporation (PSC) submits the following comments on the above referenced Public Notice.

General Comments

Several additional sampling events and a disinfection study were conducted that were not included in the Public Notice announcement. This new information was presented to both Indiana Department of Environmental Management (IDEM) and U.S. EPA personnel at an April 4, 2008 meeting held in IDEM's offices. IDEM has not yet formerly responded to the following proposed remedies recommended by PSC. The proposed remedy should be redefined as follows:

PSC will submit a letter to Marty Harmless that provides justification for the elimination of the deeper Kendallville aquifer wells from the groundwater monitoring program. PSC Metals/Group Dekko will properly abandon these wells once a letter is received from IDEM authorizing the abandonment of these wells. A letter was e-mailed to Marty Harmless on April 7, 2008.

PSC will prepare a summary report on recent investigation activities and groundwater monitoring that supports reducing conditions in the vicinity of MW-03S and associated naturally occurring arsenic concentrations in this area of the site. This report will be issued to Paula Bansch.

PSC will prepare an addendum to the closure plan to modify the groundwater monitoring program. The monitoring program will be modified to include monitoring of only the shallow perched aquifer. A minimum of one up gradient and three down gradient wells will be included in the revised monitoring program. The program will include analysis of four metals (arsenic, barium, chromium, and nickel) and parameters (pH, conductivity, temperature, dissolved oxygen, oxygen reducing potential, turbidity and TOC) useful for evaluating reducing conditions at the wells. This addendum will be issued to Paula Bansch.

After two additional quarterly monitoring events are conducted (April 2008 and July 2008), data from the last four monitoring events (October 2007, January 2008, April 2008

and July 2008) will be utilized to establish a risk-based non-default level (approximately 100 ug/l) for naturally occurring arsenic in site shallow perched groundwater. This assumes that IDEM has a mechanism for allowing use of a risk-based non-default level for the Reclaimers site. An additional four quarterly monitoring events (October 2008, January 2009, April 2009 and July 2009) would be conducted of the four shallow perched aquifer wells to evaluate that arsenic groundwater concentrations in MW-03S are within the established non-default level. Quarterly groundwater monitoring reports will be issued to Karyl Schmidt.

After collection of the data, if on-site groundwater concentrations at MW-03S are within the risk-based non-default arsenic level established for the site, a “no further remediation” letter will be issued for the groundwater operable unit. This in turn, will allow IDEM to issue a “no further remediation” letter for the closure of the former wire chop pile at the Reclaimers site.

U.S. EPA Response: U.S. EPA and IDEM are in agreement that the deeper Kendallville aquifer wells from the groundwater monitoring program can be eliminated. They further agreed to review the data to support the risk-based non-default level (approximately 100 ug/l) for naturally occurring arsenic in site shallow perched groundwater. This assumes that IDEM has a mechanism for allowing use of a risk-based non-default level. IDEM is responsible for the determination of “no further remediation” letter for the closure of the former wire chop pile at the Reclaimers site.

Specific Comments

These sections should be revised to incorporate the current proposed:

Comment: pp. 1 and 5, Summary of Proposed Remedy

These sections should be revised to incorporate the current proposed remedy as discussed in the April 4, 2008 meeting.

U.S. EPA Response: On April 4, 2008, U.S. EPA and Indiana Department of Environmental Management met with Reclaimers facility representatives. Reclaimers Inc. proposed that the monitoring program only include monitoring of the shallow perched aquifer. A minimum of one up gradient and three down gradient wells would be included in the revised monitoring program. The program would include analysis of the full parameter list from the 2003 AGMS as well as pH, conductivity, temperature, dissolved oxygen, oxygen reducing potential, turbidity and TOC. Reclaimers Inc. will use the last two-groundwater monitoring results and two additional quarters of groundwater monitoring data to establish a risk-based non-default level (approximately 100 ug/l) for naturally occurring arsenic in site shallow perched groundwater. This assumes that IDEM has a mechanism for allowing use of a risk-based non-default level for the Reclaimers site.

Reclaimers Inc. provided documentation of four quarters of meeting the groundwater cleanup requirements for the Kendallville aquifer. The deeper Kendallville aquifer wells will properly be abandoned according to IDEM requirements.

Comment: p. 3 *Interim Corrective Measures Already Completed*, 4th bullet, this bullet is incorrect.

The wire chop fluff was stabilized using the patented WespHix process prior to disposal in an off-site landfill as a special waste. A metal stabilization compound (MRC) manufactured by Regenesys, was used in a pilot study for the stabilization of the naturally occurring arsenic in the vicinity of MW-03S. The use of this compound proved unsuccessful. The grandfathered regulatory level for the site for arsenic should be corrected to 50 µg/l versus 5 mg/l.

U.S. EPA Response: The correction is noted.

Comment: p. 3, 4th bullet and p. 4, 3rd paragraph

A further clarification on how site development altered natural reducing conditions on the lower portion of the site is recommended to clarify the fact that implementation of the remedial action did not cause the naturally occurring arsenic in the vicinity of MW-03S. The remedial action merely returned the site to conditions prior to the placement of the wire chop fluff by the former tenant, Group Dekko.

Site development had an impact on local hydrogeologic conditions as follows:

- Before the site was developed the lower area along the unnamed creek was a wet marshy area. Marshy or wetland-type conditions typically have shallow groundwater that is deficient in oxygen due to the accumulation and decay of vegetation. Such an environment has reducing conditions with resulting negative ORP meter readings;
- The filling of this low lying area (1981 to 1991) of the site with wire chop fluff and placement of a PVC cover altered the wet-land type conditions. The marshy area with decaying vegetation was eliminated. Surface water no longer infiltrated and accumulated in the low lying area but rather was diverted by the cover into the adjacent unnamed creek. The pile remained covered from approximately 1992-1998. The cover was systematically removed and the wire chop fluff beneath the cover excavated, stabilized and disposed of as a special waste in a landfill starting in March 1998 with completion in July 1999. The remediation of the wire chop fluff pile returned the site to its former conditions. The lower portion of the site is now covered with dense vegetation with wet-land type conditions. The footprint of the naturally occurring elevated arsenic concentration in the vicinity of MW-03S is small (approximately 80 feet by 120 feet) as depicted on the attached figure 5-3

U.S. EPA Response: The correction is noted.

Comment: p. 5 Summary of Proposed Remedy 2nd paragraph

The cleanup level was grandfathered in to meet the RISC Default level of 50 µg/l for arsenic. However, IDEM is considering use of a risk-based non-default cleanup level in the range of 100 to 130 µg/l in the vicinity of MW-03S for the shallow discontinuous perched groundwater that is not a viable drinking water aquifer.

U.S. EPA Response: The correction is noted for the RISC Default level of 50 µg/l for arsenic. However, approval of the proposed risk-based non-default cleanup level in the range of 100 to 130 µg/l in the vicinity of MW-03S, is dependent on submittal of groundwater data to support the change.

ATTACHMENT II

Index to Administrative Record

**Index to the Administrative Record
Reclaimers, Inc.
Kendallville, Indiana
IND984894527**

Document Number	Date	Description/Author (if applicable)
RI-001	Sept. 1992	Administrative Order of Consent. Author: U.S. EPA
RI-002	Sept. 1992	RCRA Closure Plan Waste Pile. Author: Advanced Pollution Technologies
RI-003	Oct. 1995	Revised Closure Plan Wire Chop Waste Pile. Author: Philips Service Corp.
RI-004	Dec.1996-1997	Environmental, Remedial Work Plan. Author: Philips Service Corp.
RI-005	May 1998	Certification of the Completion of Treatment of the Post-LDR Waste Volume report. Author: Philips Service Corp.
RI-006	Nov. 1999	Environmental Indicator Determinations CA-725 determination for Human Exposures under Control. Author: U.S.EPA
RI-007	1 st , 2 nd , and 3 rd 2003	Quarterly Groundwater Monitoring Results. Author: Philips Service Corp.
RI-008	June 2004	CA-750 is for Migration of Contaminated Groundwater Under Control. Author: U.S. EPA
RI-009	April. 2005	Liability Evaluation, Author: Philips Service Corp
RI-010	Aug. 2003	Alternate Groundwater Monitoring System Reclaimers Inc. Author: Philips Service Corp.
RI-011	Dec. 2003	Re: Approval with Modifications Alternate Groundwater Monitoring System Reclaimers Inc. Author: Philips Service Corp.
RI-012	May 2006	Letter April 19 th Meeting at IDEM Office. Author: Philips Service Corp.
RI-013	August 2007	Revision to Closure Plan Groundwater Monitoring. Author: Philips Service Corp.
RI-014	March 2008	Letter Disinfection Evaluation. Author: Philips Service Corp.
RI-015	April 2008	Letter April 7 th Eliminate Deep Kendallville Aquifer Groundwater Monitoring. Author: Philips Service Corp.

**Index to the Administrative Record
Reclaimers, Inc.
Kendallville, Indiana
IND984894527**

Document Number	Date	Description/Author (if applicable)
RI-016	April 2008	Letter Evaluation of Reducing Conditions document, dated April 24, 2008. Author: Philips Service Corp.
RI-017	April 2008	Letter April 4, 2008 Meeting at IDEM Office, dated April 10, 2008. Author: Philips Service Corp.
RI-018	April 2008	Letter Revision to Closure Plan Groundwater Monitoring, dated April 28, 2008. Author: Philips Service Corp.

ATTACHMENT III

Statement of Basis