

**SECOND EXPLANATION OF SIGNIFICANT DIFFERENCES
for the
RAYMARK SUPERFUND SITE, OU2 & OU3
HATBORO, MONTGOMERY COUNTY, PENNSYLVANIA**

I. INTRODUCTION

Site Name: Raymark Superfund Site

Site Location: Hatboro Borough, Montgomery County Pennsylvania

Lead Agency: U.S. Environmental Protection Agency, Region III

Support Agency: Pennsylvania Department of Environmental Protection

STATEMENT OF PURPOSE

The U.S. Environmental Protection Agency (EPA) is issuing this Second Explanation of Significant Differences (ESD) for the Raymark Superfund Site (Site) (also known as Raymark(Jacksonville Road) Superfund Site) in accordance with Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA), 42 U.S.C. § 9617(c), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.435(c)(2)(i). Section 117(c) of CERCLA and Section 300.435(c)(2)(i) of the NCP require the publication of an ESD when modifications to the selected remedy necessary, and such modifications are significantly change, but do not fundamentally alter, the remedy selected in a Record of Decision (ROD) with respect to scope, performance, or cost.

This Second ESD has been prepared to provide the public with an explanation of modifications to the remedy selected in the September 28, 1990 ROD (1990 ROD), and modified by a September 28, 2007 ESD (First ESD). The remedy selected in the 1990 ROD, as modified by the First ESD, will hereinafter be referred to as the “Remedy.”

Specifically, EPA has prepared this Second ESD to explain the modifications to the performance standards for groundwater remediation that were established in the 1990 ROD and make explicit the requirement to perform a cumulative risk assessment; summarize the information that supports the modifications and confirm that the revised remedial action complies with the statutory requirements of Section 121 of CERCLA, 42 U.S.C. § 9621. In this instance, a ROD amendment is not required because the change reflects a revision in the applicable or relevant and appropriate requirements (ARARs) and the requirement for a cumulative risk assessment. These modifications do not fundamentally alter the remedial action. Further, the selected technology which is groundwater extraction and treatment will not change. The overall goal of the Remedy is the same, that is, to prevent exposure to contaminated groundwater, to protect uncontaminated groundwater and to restore the drinking water aquifer to beneficial use. This

Second ESD changes, but does not fundamentally alter, the Remedy with respect to scope, performance, or cost. Therefore, a ROD amendment is not required in this matter.

EPA is issuing this Second ESD to make the following changes to the Remedy:

- Establishing Maximum Contaminant Levels (MCLs), promulgated at 40 C.F.R. Part 141 pursuant to Section 1412 of the Safe Drinking Water Act, 42 U.S.C. Section 300g-1, as the performance standards for Site contaminants of concern (COCs) in groundwater and
- Requiring a cumulative risk performance standard for all COCs to be conducted after all groundwater performance standards have been achieved.

The bases for these modifications are discussed in detail in Section III. EPA has determined, with the concurrence of the Pennsylvania Department of Environmental Protection (PADEP) that the Remedy, as modified by this Second ESD, continues to meet the objectives of the Remedial Action.

II. SUMMARY OF SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

A. Site History and Contamination

The Raymark Superfund Site is located at 220 Jacksonville Road in Hatboro, Montgomery County, Pennsylvania. The area surrounding the Site is zoned primarily for industrial use. However, residential areas are located within a quarter mile radius surrounding the Site, with the closest residence approximately 100 ft from the property boundary on Jacksonville Road.

The Site is located on approximately 7 acres of relatively flat ground. The nearest surface water body is the Pennypack Creek which flows generally northwest to southeast through Hatboro, approximately 4,000 feet southwest of the Site. The Site is situated outside the floodplain of Pennypack Creek. The Pennypack Creek is used for recreation and several park areas are located along its banks. Several buildings of potential historical significance were identified in Hatboro, but none were on or near the Site itself. No historic or archeological properties in Hatboro are eligible for or listed on the National Register of Historic Places.

The source of Hatboro's water supply is a public water system and there are no known private wells for residential use near the Site. The Site is on top of the Stockton Formation, which consists of interbedded sandstones, siltstones, and shales. These units separate the Stockton Formation into several different aquifers. For example, at least three separate water-producing zones have been identified beneath the Raymark Site, but the fractured nature of the bedrock may lead to the interconnectivity of water-producing zones.

The main building consists of a manufacturing building, which contains office space, quality control laboratories, machine shop area, and other rental spaces. A separate structure within the property houses the groundwater treatment building. From 1948 to 1980, the manufacturing

building was historically used to treat electroplating wastes in addition to metal fabrication and rivet manufacturing operations. Solvents containing trichloroethene (TCE) were used in the manufacturing process to clean and degrease metal parts. Over several decades of manufacturing, volatile organic compounds (VOCs), primarily TCE, had been leaked or spilled in areas where it was used and stored. These areas included storage tanks and four small, unlined wastewater lagoons that were located at the rear of the property. TCE has not been used at the Site since 1980. The lagoons were excavated and backfilled in 1972. The Site was added to the Superfund program's National Priorities List in October 1989.

Under CERCLA and the NCP, EPA is designated as the lead agency and PADEP is the support agency.

B. Selected Remedy

The Site has been subdivided into three Operable Units (OUs). OU1 addresses on-site soil/source controls; OU2 addresses drinking water supply and OU3 addresses the contaminated groundwater. On September 28, 1990, EPA issued the 1990 ROD selecting a remedy for OU2 and OU3. This Second ESD presents EPA's modifications to the Remedy for OU2 and OU3.

The major components of the selected remedy in the 1990 ROD for OU2 and OU3, are as follows:

- Completion of a ground water remedial design study to determine the most efficient design of a ground
- water extraction and treatment system.
- Continued operation and maintenance of public water supply wells by the Hatboro Water Authority (HBWA).
- Continued operation and maintenance (O&M) of the air stripping towers installed at contaminated public water supply wells by the HBWA.
- Installation, operation, and maintenance of vapor phase carbon adsorption units at water supply wells equipped with air stripping towers.
- Installation, operation, and maintenance of onsite ground water extraction wells to remove contaminated groundwater from beneath the Site and to prevent contaminants from migrating offsite.
- Installation, operation, and maintenance of air stripping treatment at onsite ground water extraction wells to treat ground water to required levels.
- Installation, operation, and maintenance of vapor phase carbon adsorption units on onsite air stripping towers.
- Construction, operation, and maintenance of a pipeline from the onsite ground water treatment plant to the storm sewer system to discharge treated ground water into the storm sewer system and then offsite to the Pennypack Creek.
- Periodic sampling of ground water and treated water to ensure treatment components are effective and ground water remediation is progressing towards the cleanup goals; and
- Institutional controls (ICs) to ensure that the HBWA continues to operate public water supply wells equipped with treatment systems.

In the 1990 ROD, clean up levels were based on the Maximum Contaminant Levels (MCLs), non-zero Maximum Contaminant Level Goals (MCLGs), or background, whichever was lower.

On September 28, 2007, EPA issued the First ESD which modified the remedy selected in the 1990 ROD for OU2 and OU3. The First ESD eliminated the monitoring and treatment of public supply wells H-14 and H-17 for OU2. Those wells were being impacted by known regional contamination which includes potential non-site sources. EPA determined that it was not possible to achieve cleanup levels within the Hatboro Regional Aquifer as remediation of the wells were impractical and ineffective due to the presence of the other sources.

The First ESD also eliminated the 1990 ROD requirement that the HBWA continue to operate certain public water supply wells equipped with air stripper treatment as part of the remedy for OU3. Since the issuance of the 1990 ROD, HBWA sold its entire water distribution system to a private company, Aqua America Inc., which provides drinking water from aquifers located outside Hatboro. In addition, Institutional Controls were identified in order to ensure long-term protectiveness of the remedy.

In the 2019 Five-Year Review report, EPA recognized PADEPs repeal of background as groundwater performance standards and determined that a modification to the performance standards was appropriate to reflect the cleanup standards under the Commonwealth of Pennsylvania Land Recycling and Environmental Remediation Standards Act of May 19, 1995, P.L. 4, No. 2 (Act 2). Accordingly, the performance standards for COCs applicable to OU2 and OU3 are the more stringent of MCLs, non-zero MCLGs and Pennsylvania Act 2 MSCs.

C. Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Remedy remain consistent with the 1990 ROD for OU2 and OU3 as set forth below:

- Protection of public health and the environment.
- Reduction of the further migration of contaminated groundwater from the Site towards public supply wells.
- Containment of the contamination within the currently affected area.
- Reduction of risk resulting from release of contaminants into the air from treatment devices and,
- Contribute to the restoration of the aquifer to its beneficial use, and further to background quality, if practicable.

III. DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE BASIS FOR SUCH DIFFERENCES

This Second ESD modifies the performance standards for the remediation of COCs for OU2 and OU3 and requires a cumulative risk performance standard for all COCs to be conducted after all groundwater performance standards have been achieved.

A. Modification to Performance Standards

CERCLA § 121(d), 42 U.S.C. § 9621(d), requires that EPA conduct remedial actions in compliance with all ARARs identified at the time the ROD is signed. The 1990 ROD required that groundwater be remediated until the contaminant levels reach MCLs, non-zero MCLGs or background, whichever were lower. The remediation goal of reaching background was based on the Pennsylvania Hazardous Waste Management Regulations, 25 Pa. Code §§ 264.97 (i)-(j) and § 264.100 (a)(9), which required contaminated groundwater be cleaned up to background levels. In 1995, the Commonwealth of Pennsylvania signed into law the Land Recycling and Remediation Standards Act, 35 P.S. §§ 6026.101 through 109, also known as "Act 2," in which it established, among other things, statewide health standards for groundwater, as set forth in 25 Pa. Code § 250.301(a.). Therefore, in consideration of Act 2, this Second ESD is modifying the performance standards to be the most stringent of MCLs, non-zero MCLGs, Pennsylvania Safe Drinking Water Act standards or the statewide health standards under Act 2 set forth at 25 Pa. Code § 250.301(a) and Appendix A, Tables 1 and 2. EPA has determined that the remediation standards contained in Act 2 do not impose any requirements more stringent than federal standards. Therefore, EPA will apply MCLs as the performance standards for groundwater contaminants at the Site.¹

The COCs associated with the groundwater at the Site are the following VOCs:

Table 1.

Contaminants of Concern in Groundwater	
trichloroethene (TCE)	1,1 -dichloroethene (1,1-DCE)
tetrachloroethene (PCE)	1,2-trans dichloroethene (1,2-Trans DCE)
1,1,1 –trichloroethane (1,1,1-TCA)	1,2-cis dichloroethene (Cis-1,2-DCE)
vinyl chloride (VC)	carbon tetrachloride (CCl4)

EPA has determined that the following performance standards are necessary to protect human health and the environment.

Table 2.

Contaminant	Performance Standards (MCL)	Units
TCE	5	µg/L
PCE	5	µg/L
1,1,1-TCA	200	µg/L
VC	2	µg/L
1,1-DCE	7	µg/L
Trans-1,2-DCE	100	µg/L
Cis-1,2-DCE	70	µg/L
CCl4	5	µg/L

¹ EPA is not required to amend a ROD to add ARARs that come into effect after such ROD is signed, unless the selected remedy is no longer protective, or a significant new component is added. However, in instances where a state ARAR that is more stringent than a federal ARAR is revised, EPA can re-visit a ROD's ARARs in appropriate circumstances, as in this case.

The Remedy, as modified by this Second ESD, will continue to provide protection to public health and the environment because the selected performance standards apply to COCs associated with the groundwater at the Site. In addition, the Remedy, as modified by this Second ESD, will continue to:

- Remove the contaminated groundwater from beneath the Site;
- Require the treatment of contaminated groundwater at the Site;
- Reduce further migration of contaminated groundwater from the Site toward public supply wells;
- Prevent exposure to contaminated groundwater, and
- the operation of the vapor phase carbon adsorption units on the on-Site treatment system will continue to prevent the release of VOC contaminants into the air thereby protecting public health and the environment.

B. Addition of Cumulative Risk Assessment upon Achieving Performance Standards

When EPA determines that the performance standards for individual groundwater COCs have been achieved, residual cumulative risk from exposure to Site contaminants will be evaluated to ensure long-term protectiveness has been achieved. The evaluation will be based on an assessment of the cumulative risk across all applicable exposure routes for all COCs remaining in groundwater following achievement of the performance standards. To achieve unlimited use and unlimited exposure (UU/UE), the total site-related risk from COCs shall not exceed target-organ-specific Hazard Indices of 1 nor a total cancer risk of 1E-4.

The Remedy, as modified by this Second ESD, remains protective of human health and the environment for the Raymark Superfund Site.

IV. SUPPORT AGENCY COMMENTS

In accordance with 40 C.F.R. § 300.435(c)(2), EPA has consulted with PADEP concerning the proposed modifications set forth in this Second ESD. EPA received a letter dated November 2nd, 2022, from PADEP, which recommendations to the document which have been addressed as appropriate) and it documents its concurrence with the Remedy as amended by this Second ESD. This letter of concurrence can be found in Appendix A of this document, as well as in the AR.

V. STATUTORY DETERMINATIONS

EPA has determined that the modification to the Remedy as described in this Second ESD complies with the statutory requirements of Section 121 of CERCLA, 42 U.S.C. § 9621. Furthermore, EPA has determined that the Remedy, as modified by this Second ESD, will remain protective of human health and the environment, will comply with Federal and State requirements that are applicable or relevant and appropriate to this remedial action, and will be cost-effective.

VI. PUBLIC PARTICIPATION

In accordance with CERCLA §117(d) and NCP § 300.825(a), this Second ESD and the information upon which it is based will be included in the Administrative Record for the Site which is available for review online at: <http://loggerhead.epa.gov/arweb> or at the location(s) identified below.

Union Library-Hatboro
243 South York Road
Hatboro, PA 19040
(215) 672-1420

U.S. Environmental Protection Agency
Attn: Superfund Records Team
4 Penn Center - 1600 JFK Blvd.
Philadelphia, PA 19103

Hours Monday – Friday 8:00am – 4:30pm.
by appointment only
(215) 814-3157

Questions concerning EPA’s action and requests to review the Administrative Record at EPA’s office should be directed by telephone and/or email to:

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U.S. EPA Region III
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Pursuant to Section 117(d) of CERCLA, 42 U.S.C. § 9617(d), and Section 300.435(c)(2)(i)(B) of the NCP, 40 C.F.R. § 300.435(c)(2)(i)(B), EPA is publishing a public notice in the Intelligencer announcing this Second ESD and informing the public of its availability.

VII. SIGNATURE

This Second Explanation of Significant Differences modifies the Remedy for OU2 and OU3 of the Raymark Superfund Site to establish MCLs as the performance standard for groundwater and require a cumulative risk assessment once those performance standards are achieved.

Approved by:

PAUL LEONARD

 Digitally signed by PAUL LEONARD
Date: 2023.04.29 07:39:25 -04'00'

Paul Leonard, Director
Superfund & Emergency Management Division
EPA Region III

Date