



Explanation of Significant Differences

ROBINTech, INC./NATIONAL PIPE CO. SUPERFUND SITE

Town of Vestal, Broome County, New York

EPA Region 2

August 2018

INTRODUCTION

The purpose of this Explanation of Significant Differences (ESD) is to explain changes made by the U.S. Environmental Protection Agency (EPA) to the remedies selected for the Robintech, Inc./National Pipe Co. Superfund Site (Site), located in the Town of Vestal, Broome County, New York.

Under Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. Section 9617(c) (CERCLA or Superfund), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Contingency Plan (NCP), EPA is required to issue an ESD when, after issuance of a Record of Decision (ROD),¹ a significant, but not fundamental, change is made in either scope, performance, or cost of a selected remedy.

This ESD provides a brief history of the Site, describes both the 1992 and 1997 ROD selected remedies, and further explains how, subsequent to the 1997 ROD, an issue concerning the scope of the selected remedy was identified for the Site. As a result, this ESD describes a significant change to the remedy that was originally selected in 1997.

The Site includes two areas termed "Property" and "Off-Property." The Property portion of the Site is a 12.7-acre parcel of land. The Off-Property portion of the Site encompasses the downgradient areas affected by the release or threat of release of hazardous substances. The Off-Property portion of the Site is located geographically to the west of the Property, extending toward the Susquehanna River.

The 1997 ROD called for, among other things, active treatment of contaminated groundwater and the implementation of institutional controls (ICs)² to restrict the installation and use of groundwater wells at and downgradient of the Property until groundwater quality has been restored. In 2006, the IC for the Property was implemented in the form of a Declaration of Easements, Covenants, and Restrictions that was filed in the County Clerk's office. With respect to the Off-Property areas, Town of Vestal codes §24-73(d) and §24-518(a-c) effectively prohibit the installation of groundwater wells by requiring connection to the public drinking water supply system.

Volatile organic compounds (VOCs) remain in the portions of the groundwater under both the Property and the Off-Property areas. VOCs, even at low levels, can migrate as vapors through the soil into buildings and ultimately can impact indoor air. This process, commonly referred to as "vapor intrusion," can result in unacceptable human exposures to VOCs inside occupied buildings.

Although there is no current risk of vapor exposure at the Property based on its current use (a warehouse and the ground level of a former-manufacturing building are unoccupied), vapor intrusion may be a concern if these buildings are occupied in the future or if there is new construction in Property or Off-Property areas. Accordingly, this ESD serves to document EPA's decision to incorporate into the remedy an informational IC, described below, to address this vapor-intrusion concern.

SITE HISTORY, CONTAMINATION PROBLEMS AND SELECTED REMEDY

The Site is in the Town of Vestal, a regionally important industrial center adjacent to Binghamton, New York in the

or through informational devices such as public notices, that reduce or limit the potential for human exposure to contamination and/or protect the integrity of a remedy.

¹ A ROD documents EPA's remedial cleanup decision.

² ICs are non-engineered controls, such as property- or groundwater-use restrictions placed on real property by recorded instrument, by a governmental body by law or regulatory activity,

Susquehanna River basin. The Property, which includes a two-story building and a warehouse, is bordered by Commerce Road and several warehouses and light industrial buildings to the east, Old Vestal Road and several residences to the south and southwest, an amusement facility and fuel storage tanks to the west, and railroad tracks to the north.

The Property and the Off-Property areas are zoned industrial/commercial. With the strong presence of commercial and industrial infrastructure, future land use is anticipated to remain industrial/commercial.

The Property is located approximately half-way down the westerly face of a hill that slopes gently toward the Susquehanna River. Consistent with this, EPA field observations and examination of topographic contours indicate that the overland flow of surface water across the Property is to the west, controlled by a series of conduits and drainage ditches which direct the flow to the river, located approximately a half mile to the north and west. The area where the Property is located is not known to contain or impact any ecologically-significant habitat, wetlands, agricultural land, or historic or landmark sites.

The area has two distinct aquifers. The upper or overburden aquifer is comprised of material consisting mainly of till and is approximately 20 to 40 feet thick. In addition, fill material associated with extensive grading on the Property for storage and parking spaces ranges from zero to six feet in thickness. Groundwater is encountered within the upper aquifer unit six to twenty feet below ground surface (bgs). The lower or bedrock aquifer is shale with a weathered zone seven- to ten-feet thick. The primary permeability of this material is low, but the secondary permeability is much higher. Fractures along the horizontal bedding planes and vertical joints in the shale allow for groundwater flow.

Groundwater flow at the Site is primarily toward the west, with minor components trending to the northwest and southwest. There are no private drinking water wells in the vicinity of the Site. All residents are supplied with drinking water by Vestal municipal well fields. One of these well fields is located downgradient of the Site near the river. None of the wells in the Vestal well fields are affected by Site-related contamination.

Eight production wells were drilled on the Property between 1983 and 1984 by former Site owner/operators. These six-inch diameter wells were installed with steel casing through the till overburden formation and then finished as open bedrock holes to an average depth of 300 feet bgs. The wells provided cooling water for the operators of a pipe-production process, which was then discharged to surface water at a permitted effluent-discharge point. An effluent sample collected at the Property by the New York State Department of Environmental Conservation (NYSDEC) in 1984 to verify discharge-permit compliance found VOCs that were not covered under the permit. Further investigations resulted in the conclusion that the

contamination was coming from the bedrock groundwater beneath the Property. NYSDEC also determined that there were soil source areas in the overburden at the Property affecting groundwater in both the overburden and bedrock geologic units.

Sampling was conducted by EPA in 1985 to evaluate the Site for inclusion on the National Priorities List (NPL). Groundwater monitoring revealed elevated concentrations of VOCs in the overburden soil and bedrock groundwater. Based on the results of this monitoring, the Site was placed on the NPL in 1986.

Following the listing of the Site on the NPL, a remedial investigation (RI) was performed. The RI revealed numerous VOCs in the overburden and bedrock groundwater and in overburden soils. The RI report, along with a human-health risk assessment and a feasibility study (FS) report, was completed in 1991.

Following the completion of the RI/FS, a ROD was signed in March 1992 (1992 ROD). The remedy included the extraction of contaminated bedrock and overburden groundwater and its treatment via air stripping.

An investigation to assess suspected elevated lead concentrations in Site soil and sediment did not reveal elevated lead concentrations in any Site media. Accordingly, a no action ROD for these soils and sediments was signed in March 1993.

The results of a preliminary remedial design (RD) investigation indicated that overburden groundwater and subsurface soils were contaminated at levels much greater than those detected during the RI; the contaminated subsurface soils were subsequently determined to be source areas. In addition, the pre-RD investigation concluded that the overburden-formation till was of relatively low-permeability with an extremely-low groundwater yield. Therefore, the extraction of contaminated groundwater from the overburden (the remedy selected for the overburden in the 1992 ROD) was determined not to be feasible.

An alternative approach to address the contaminated groundwater was determined to be necessary. In addition, it was determined that the source areas in the overburden soil needed to be addressed. A ROD was signed in July 1997. This 1997 ROD addressed source contamination present above and below the water table in the overburden in three areas of the Site. Additionally, based on the tight overburden formation, resulting in extremely low groundwater yields (approximately 0.1 gallon per minute), consistent with EPA and state guidance, the overburden aquifer is not usable. Therefore, the 1997 ROD also concluded that federal and state Maximum Contaminant Levels (MCLs) are not applicable with respect to the overburden aquifer. As the bedrock aquifer is usable, federal and state MCLs remain applicable with respect to that aquifer.

The 1997 ROD called for the excavation of unsaturated- and saturated-overburden soils in three areas of the Property and treatment of the VOCs using low-temperature thermal desorption; the extraction of contaminated groundwater from the bedrock aquifer through the existing production-well network until MCLs are achieved; and remediation of contaminated overburden groundwater through natural attenuation processes, including chemical degradation, dilution, and dispersion at the Site.

Negotiations between EPA and several potentially responsible parties (PRPs) that coalesced into a PRP Group resulted in an agreement embodied in a 1998 Consent Decree to carry out the RD, construction, and operation and maintenance of the remedy selected in the 1997 ROD.

The RD of the soil source-removal excavation and treatment was initiated in 1999. The excavation, treatment, and backfilling of more than 10,000 cubic yards of VOC-contaminated soil was performed to 2001. Post-excavation soil sampling results indicated that residual levels of VOCs in the soils were below the target cleanup levels.

After eliminating a conduit of contamination from the overburden into the bedrock by sealing one of the production wells in 1996, the rebuilding and upgrade of the existing bedrock groundwater extraction system was completed in 2001. This work included installing new pumps, piping, wiring, and instrumentation for the existing production-well system. A combination of logistical circumstances, primarily, the decision of the pipe-production facility to discontinue the use of the extracted groundwater in its manufacturing process, resulted in the system being shut down in 2003. In 2005, after the completion of negotiations between EPA, the PRP Group, and the property owner, the bedrock-groundwater extraction system, with the addition of a carbon-treatment component, became operational. The property owner ran the system on behalf of the PRP Group until May 2014, when the system, which had treated the groundwater to asymptotic levels above the MCLs, became inoperable due to the need for extensive repairs. EPA is currently investigating alternatives to the extraction and treatment of the bedrock groundwater.

The 1997 ROD called for the implementation of ICs to restrict the installation and use of groundwater wells at and downgradient of the Property until groundwater quality has been restored. The ICs were implemented for the property in the form of a Declaration of Easements, Covenants and Restrictions that were filed in the County Clerk's office in March of 2006. With respect to areas downgradient of the Property, Town of Vestal Code §24-73.d effectively prohibits the installation of groundwater wells in that it requires all development (residential, commercial, industrial, etc.) to connect to the public drinking-water supply system in all areas of the Town where the public supply is available. The Property and the plume downgradient of the Property are in an area where the public drinking-water supply system is available. Further,

the installation of any other groundwater-withdrawal well is restricted within areas of the Town designated as an "aquifer district" (Town of Vestal code §23-518.a-c). Property and Off-Property areas are located within an "aquifer district."

DESCRIPTION OF SIGNIFICANT DIFFERENCES

Although there is no current risk of vapor exposure at the Property based on its current use (the warehouse and the ground level of the former-manufacturing building are unoccupied), vapor intrusion may be a concern if these buildings are occupied in the future or if there is new construction in Property or Off-Property areas. Accordingly, an informational IC is necessary to address the potential for vapor intrusion into indoor air in occupied/potentially-occupied structures in the Property and Off-Property areas. In order to implement this IC, the Town of Vestal has agreed to notify EPA when a) there is a change in tenancy, or b) new structures or modifications to existing structures are proposed in the Property and Off-Property areas. In either instance, EPA will provide landowners the opportunity to have occupied/potentially-occupied structures evaluated for vapor intrusion. Depending on the results, EPA will provide the opportunity for periodic monitoring and/or recommend appropriate mitigation measures, as necessary. EPA will periodically verify that this IC remains in place until such time as groundwater cleanup goals have been attained beneath the subject parcels (*i.e.*, the potential for VI is an incomplete exposure pathway). EPA's and the Town of Vestal's agreement for notification and the subsequent periodic IC verifications constitute this IC.

This ESD serves to document EPA's decision to incorporate into the remedy the aforementioned IC to address vapor intrusion. The modified remedy, which also includes excavation of unsaturated- and saturated-overburden VOC-contaminated soils, treatment of the VOCs using low-temperature thermal desorption, extraction of contaminated groundwater from the bedrock aquifer, and implementation of ICs to restrict the installation and use of groundwater wells at and downgradient of the Property, remains protective of human health and the environment.

SUPPORT AGENCY COMMENTS

NYSDEC, after careful consideration of the modified remedy, supports this ESD, as the modified remedy significantly changes but does not fundamentally alter the remedy selected in the ROD.

FIVE-YEAR REVIEWS

Because hazardous substances, pollutants, or contaminants remain at the Site at levels that do not allow for unlimited use or unrestricted exposure, in accordance with 40 CFR 300.430 (f)(4)(ii), the remedial action for the Site shall be reviewed no less often than every five years.

EPA has completed three reviews thus far and will conduct another five-year review on or before September 2021.

AFFIRMATION OF STATUTORY DETERMINATIONS

EPA is issuing this ESD after consultation with NYSDEC. NYSDEC concurs with the approach presented in this ESD. The remedy, as modified by this ESD, will continue to be protective of human health and the environment and will comply with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action. The modified remedy is technically feasible, cost-effective and satisfies the statutory requirements of CERCLA by providing for a remedial action that has a preference for treatment as a principal element and, therefore, permanently and significantly reduces the toxicity, mobility and volume of hazardous substances.

PUBLIC PARTICIPATION ACTIVITIES

Pursuant to NCP §300.825(a)(2), this ESD will become part of the Administrative Record for the 1997 ROD. The Administrative Record is available for public review at the Town of Vestal Public Library, 320 Vestal Parkway East, Vestal, New York.

The Administrative Record and other Site-related records are also available for public review at EPA Region 2's office at the following location:

U.S. Environmental Protection Agency
290 Broadway, 18th Floor
New York, New York 10007-1866
(212) 637-3263

Links to the Administrative Record and other Site-related documents can be found on the EPA Site Profile Page at www.epa.gov/superfund/robintech. EPA is making this ESD available to the public to inform them of the changes made to the remedy. Should there be any questions regarding this ESD, please contact:

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With the publication of this ESD, the public participation requirements set out in §300.435(c)(2)(i) of the NCP have been met.