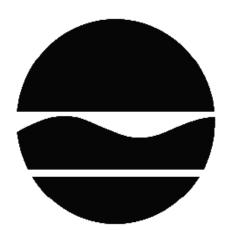
STATEMENT OF BASIS FINAL CORRECTIVE MEASURES SELECTION

Eastman Kodak Company Shed S-26 (SWMU S-091) Eastman Business Park - S Rochester, NY NYSDEC Site Number 828177-OU2 EPA ID#NYD 980592497 March 2013



Prepared by Division of Environmental Remediation New York State Department of Environmental Conservation

DECLARATION STATEMENT – STATEMENT OF BASIS FINAL CORRECTIVE MEASURES SELECTION

Eastman Kodak Company Shed S-26 (SWMU S-091) Eastman Business Park - S Rochester, NY NYSDEC Site Number 828177-OU2 EPA ID#NYD 980592497 March 2013

Statement of Purpose and Basis

This document presents the selected final corrective measures for the Shed S-26 Solid Waste Management Unit (SWMU S-091) area, which was historically owned and operated by Eastman Kodak Company. The remedial program was chosen in accordance with the NewYork State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 373.

The proposed remedy selection was made available for public comment between February 27, 2013 and March 28, 2013. There were no comments received from the public on the corrective measures proposed in the draft SB. Although no comments were received, a Responsiveness Summary, that includes additional information about public participation activities, is included in Appendix A of the Statement of Basis.

This decision is based on the Administrative Record for the New York State Department of Environmental Conservation (the Department) for the Shed S-26 area of Eastman Kodak Company's Eastman Business Park, included in Appendix B of the Statement of Basis.

Description of Selected Remedy

The proposed remedy addresses a release of chlorinated solvent into groundwater. The release occurred near former Shed S-26 that was historically operated by Kodak for material and waste storage. Shed S-26 was subsequently closed under a NYSDEC approved plan, and later demolished. The remedy includes further actions to address impacts to groundwater, monitoring and controls on future use of the site.

The elements of the selected remedy are as follows:

For groundwater, the remedy involves remediation of contaminated groundwater by in-situ

Statement of Basis – EBP-S (SWMU S-091) March 2013 treatment. This will involve injecting material into the groundwater to provide a food source for naturally occurring bacteria, to encourage the breakdown of the TCE, and result in reduced TCE concentrations in the groundwater. Groundwater monitoring will be used to assess the effectiveness of the action and to ensure that the remedy remains protective during future use of the site.

No response actions are required for soils since no source material was identified during site investigations. However, the remedy includes institutional controls on future use, including excavation controls regarding management of excavated soils, and soil vapor intrusion assessment requirements in relation to future site development.

The remedy includes institutional controls on the property. A site management plan is also a required element of the remedy, and includes excavation and management controls for soil and groundwater, as well as soil vapor intrusion assessment requirements for site development. The site management plan includes reporting and certification requirements to ensure that the remedy remains protective during future use of the site.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 29,2013

Date

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Robert W. Schick, P.E., Director Division of Environmental Remediation

STATEMENT OF BASIS FOR FINAL REMEDY SELECTION

Eastman Kodak Company Shed S-26 (SWMU S-091) Eastman Business Park - S Rochester, NY NYSDEC Site Number 828177-OU2 EPA ID#NYD 980592497

Facility/Unit Type:	Former Chemical distribution facility/Waste storage area
Contaminants:	Volatile organic compounds (VOCs)
Media:	Groundwater
Selected Remedy:	Enhanced Reductive Dechlorination of Groundwater Plume, Groundwater Monitoring; and Institutional Controls.
Date:	March 2013

FACILITY DESCRIPTION

Location: The Site is within in the approximately 125acre Eastman Business Park Section S (EBP-S), and is located to the south of Ridgeway Avenue, in an area of mixed use (residential, commercial, industrial area) on the west side of the City of Rochester, Monroe County. The site is located in a commercial/industrial area in the City of Rochester and the Town of Greece. (see Figure 1)

Site Features: The site sits to the east of the former Kodak Building 502. There are several private (EBP-S) internal roadways within the area, but there are currently no structures within the boundaries of the S-26 corrective action area (see Figure 1). Although the site does not directly abut public roadways, it is bounded on the east by Mount Read Boulevard, on the west by Lee Road, on the north by Ridgeway Avenue, and on the south by Lexington Avenue.

Current Zoning/Uses: The S-26 corrective action site is located within the Eastman Business Park. The majority of the EBP-S property is zoned industrial. The property also includes several small parcels abutting Ridgeway Avenue that are currently zoned and used for residential/professional purposes.

Historic Use(s): Shed S-26, also designated Solid Waste Management Unit (SWMU) S-091, was constructed in 1974, primarily to support Kodak operations in nearby Building 502. Shed S-26 was demolished and the foundation was removed in 2007. The site operated mainly as a raw material storage and distribution facility. A portion of the site was also used for storage of containerized waste, including solvents.

Kodak retains the remediation obligations associated with historical facility operations at the site.

Site Geology and Hydrogeology: The environmental investigations completed have shown that the site is underlain by a surficial fill which in turn is underlain by a thin layer of soil over shale bedrock. The soil/overburden varies from about 9 to 15 feet in thickness. Groundwater is present approximately 5 feet below ground surface, and the horizontal groundwater flow is to the northeast and east.

ENVIRONMENTAL ASSESSMENT

Based upon investigations conducted to date, releases have contaminated groundwater in the vicinity of the former Shed S-26. The primary contaminant of concern for this site is trichloroethene (TCE). There have been no detections of VOCs in soils at levels above the commercial use soil clean-up objective in samples collected at the site.

Concentrations of VOCs in on-site groundwater near Shed S-26 have exceeded groundwater standards (typically 5 micrograms per liter or parts per billion [ppb] for the contaminants of concern). The results of periodic groundwater sampling events show that concentrations of TCE have declined over time in the immediate vicinity of the former S-26 shed. There have been no detections of VOCs in off-site monitoring wells at levels above applicable guidelines.

There are no significant fish or wildlife receptors present.

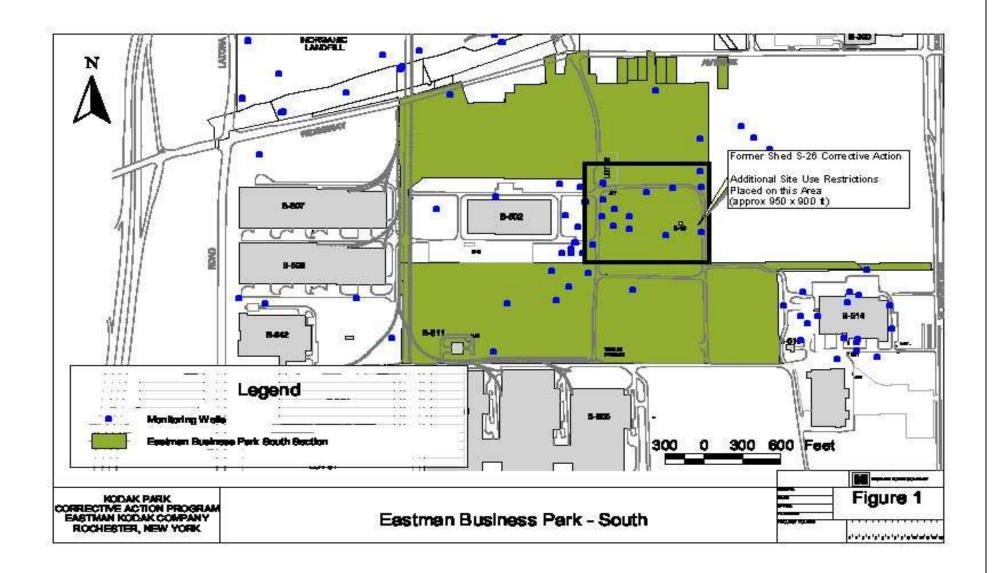
HEALTH ASSESSMENT

This site is fenced and soil at the site has not been affected by this contamination, so exposure via direct contact is not likely. People are not drinking site-related contaminants in drinking water since the area is served by a public water supply not affected by this contamination.

Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn could affect the indoor air quality if buildings were to be constructed in the contaminated area. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Currently there are no buildings on the site. However, the potential may exist for the inhalation of site contaminants due to soil vapor intrusion for any future on-site building development and occupancy.

REMEDIATION OBJECTIVES

	Remedial Objectives	Remedial Action		
1.	Restore groundwater, to the extent practicable, to current New York State groundwater quality standards.	 Enhanced reduction dechlorination to break down chlorinated solvents in groundwater. 		
2.	Reduce contaminant concentrations and area of impact of the groundwater plume.	 A Site Management Plan (SMP) that includes monitoring of groundwater to assess the effectiveness of the remedy is included. The SMP includes a restriction on use of the groundwater. 		
3.	Prevent contact with, or inhalation of volatiles, from contaminated groundwater/soil.	- The SMP includes evaluation of soil vapor intrusion potential and possible mitigation in the event that buildings are to be constructed on the site. The SMP also includes requirements to be followed when excavating/handling soil or groundwater generated from the site.		



CONTAMINANTS DETECTED AND CLEANUP GOALS - EBP-S SHED S-26 SITE (SWMU S-091)

Media	Contaminant	Maximum Concentration (µg/L) ¹	Most Recent Concentration (ug/L) ⁴	Action Level (µg/L) ²	Cleanup Goal (µg/L)
On-site	1,1,1-trichloroethane	48	28	5	5
Groundwater	1,1-dichloroethane	130	57	5	5
9/15/09	1,1-dichloroethene	29	16	5	5
	cis-1,2-dichloroethene	640	160	5	5
	methylene chloride	14	ND	5	5
	tetrachloroethene	14	14	5	5
	trichloroethene	3600	410	5	5
	vinyl chloride	110	46	2	2
Off-site	cis-1,2-dichloroethene	1.8 J	1.8 J	5	5
Groundwater 9/16/09	trichloroethene	2.1 J	2.1 J	5	5

Notes:

1. Maximum observed concentrations are for the highest observed concentration during the entire investigation period beginning in 2004.

 Groundwater action levels/cleanup goals as referenced in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Water Guidance Values.

3. Based on most recent sampling event: November 2011 for most wells.

NA - not applicable

ND – not detected above laboratory detection limits

NS - not submitted for analysis of this chemical

NYSDEC - New York State Department of Environmental Conservation

µg/L – micrograms per liter

SELECTED REMEDY

Remedial alternatives for the site were evaluated in a Corrective Measures Study Report (CMS Report) dated April 2012. This and other related documents were available for review at the New York State Department of Environmental Conservation (NYSDEC) offices listed in the public participation section of this document.

The components of the selected remedy include:

1. Remedial Design - A remedial design program will be implemented to provide the details necessary for the construction, operation, and maintenance of the remedial program. This includes groundwater monitoring to assess the effectiveness of the remedial action, and to determine if the actions are effectively attenuating the impacts to groundwater. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31.

2. Enhanced Reductive Dechlorination – Reductive dechlorination is a term that is used to describe certain types of degradation of chlorinated organic compounds in groundwater or soil by chemical reduction with release of inorganic chloride ions. For this site the process involves injection of material into the subsurface via injection points/wells to help expedite the breakdown of TCE. The injection material creates conditions that facilitate degradation of the contaminants by certain species of naturally occurring bacteria that use the contaminants as an energy source (food). The method of injection and depth of injection is determined by location of the contamination.

At this site, the material would be applied near the bedrock/soil interface, approximately 10 feet below ground surface. The injection material is typically a

carbon rich source such as molasses or emulsified oil. The specifics regarding material selection and injection will be defined in the remedial design.

3. A Site Management Plan, which includes the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

This control plan includes, but may not be limited to:

- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- soils and groundwater management requirements for excavation activities;
- maintaining site access controls and Department notification; and
- steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department.

4. Imposition of an institutional control in the form of an easement on the property that:

 requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls;

- restricts the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- prohibits use of groundwater without proper prior treatment;
- requires compliance with the Department approved Site Management Plan.

Periodic groundwater quality testing will be conducted at select on-site and off-site wells to monitor progress towards achieving the objective of restoring, to the extent practicable, groundwater to current New York State groundwater quality standards.

The Department believes that this remedy is protective of human health and the environment.

The estimated cost for implementation of the selected remedy approximately \$435,000. The estimated capital costs are \$178,000 and the operation and maintenance costs for eight years are estimated at \$256,000.

There is an additional potential contingent cost estimated at approximately \$90,000 in the event that monitoring shows that supplemental injection in the plume area is needed.

INTERIM MEASURES

Kodak conducted pilot and field scale testing of nano-scale zero valent iron (NZVI) injection, an innovative/emerging technology, within the plume area as an interim measure. Post-injection monitoring showed that NZVI had a limited effect on contaminant concentrations in groundwater in the in the vicinity of the release near S-26, and did not substantially affect the downgradient plume area.

NEXT STEPS

The remedial program will be administered under DEC Order on Consent Index # CO 8-2011-10022.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Eastman Kodak Company Shed S-26 (SWMU S-091) Eastman Business Park - S Town of Greece, Monroe County, New York NYSDEC Site Number 828177-OU2 EPA ID#NYD 980592497

The draft Statement of Basis (SB) for the referenced site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued for public comment on February 27, 2013. The draft SB outlined the remedial measures proposed for the referenced operable unit.

The release of the draft SB was announced by sending a fact sheet to the Monroe County public contact list via Listserve, informing the public of the opportunity to comment on the proposed remedy. A fact sheet regarding the proposed action was also sent to adjacent property owners. The draft Statement of Basis was also posted on the Department's website to facilitate public availability and review of documents related to the proposed action.

The public comment period for the draft SB ended on March 28, 2013. The Department did not receive any comments concerning the proposed action.

APPENDIX B

Administrative Record

Administrative Record

Eastman Kodak Company Shed S-26 (SWMU S-091) Eastman Business Park - S Town of Greece, Monroe County, New York NYSDEC Site Number 828177-OU2 EPA ID#NYD 980592497

Golder, 2004. SIA-502/605 RCRA Facility Investigation Report - Kodak Park Corrective Action Program. Eastman Kodak Company, Rochester, New York. Golder Associates Inc. March 2004.

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New York State Department of Environmental Conservation, 2013. Order on Consent Index # CO 8-2011-10022 between NYSDEC and Eastman Kodak Company, February 2013.