

US EPA ARCHIVE DOCUMENT

# STATEMENT OF BASIS/FINAL DECISION AND RESPONSE TO COMMENTS SUMMARY

REGION II  
ID# 0109

## Northeast Environmental Services

Lenox, New York

Signed September 30, 1993

<b>Facility/Unit Type:</b>	<b>Commercial hazardous waste management facility</b>
<b>Contaminants:</b>	<b>Toluene, vinyl chloride, 1,1-dichloroethene, 1,1-dichloroethane (DCA), ethyl benzene, 1,1,1-trichloroethane (TCA), and xylenes</b>
<b>Media:</b>	<b>Ground water</b>
<b>Remedy:</b>	<b>Ground-water treatment using a single recovery well to remove contaminated ground water, air stripping, and liquid phase carbon adsorption followed by offsite discharge of treated effluent and offsite disposal of spent carbon</b>

### FACILITY DESCRIPTION

On September 27, 1991, EPA issued a final permit to Northeast Environmental Services (NES), pursuant to HSWA, which contained conditions for investigating and remediating past releases at the facility. In conjunction, the New York State Department of Conservation (NYSDEC) issued a permit under Part 373 of the New York State Environmental Conservation Law for the treatment and storage of hazardous waste. These two permits identified 12 solid waste management units and discussed the proposed ground-water remediation corrective measures.

The 3.6-acre NES site is a commercial hazardous waste management facility located in Lenox, Madison County, New York. The facility accepts hazardous waste from offsite for storage and treatment prior to shipping in its licensed transport vehicles to authorized hazardous waste management facilities for further treatment or disposal. The facility's processing operations include decanting, neutralizing, recontainerizing, or blending of solids/sludges, wastewaters, and waste fuels. Prior to current operations, the facility was owned by the Haz-O-Waste Corporation. Operations began at the site on August 31, 1976. NES has owned and operated the facility since September 1986.

The southern 1.4 acres of the facility are developed, while the remaining 2.2 acres consist of agricultural land. The site is also surrounded to the northwest and east by agricultural land, and to the south by the old Erie Canal. The nearest population

centers are a half-mile to the east in the Village of Wampsville (pop. 569), and one mile west in the Village of Canastota (pop. 4,733). The nearest residential community, a trailer park whose drinking water needs are met by private wells, is located approximately 3/4 of a mile northwest of the facility, which is in the general direction of ground water flow.

The site is uniformly underlain by a silty fine sand unit approximately 30 feet thick, which is underlain by a compact silt layer a few feet thick. Ground water is very shallow in the upper fine sand unit, varying from a few feet in depth to even above ground level during the spring snow melt. The contaminant plume has been relatively stable in terms of shape, constituents, and concentrations for several years due to a series of shallow drainage ditches surrounding the facility and an upward gradient across the silt layer which appear to prevent contaminated ground water from migrating offsite and downward, respectively.

Hazardous wastes handled by NES at this site include industrial solvents, ink and paint residues, acids, caustics, lab chemicals, and bleach. Contamination at the facility is said to be due to the long-term operation of the site, lack of engineered structures to provide secondary containment, and inadequate waste management practices. In order to mitigate the potential release of these contaminants into the environment, a series of engineering controls have been implemented since February 1987 which have included protective coatings for waste handling areas, secondary containment devices for waste staging

## CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume (liters)	Contaminant	Maximum Concentration (µg/l)	Action Level (µg/l)	Cleanup Goals * (µg/l)	Point of Compliance
ground water	8,170,970 (total)	vinyl chloride	2,800	2	2	
		toluene	17,580	5	5	
		1,1-dichloroethene	2,970	5	5	
		1,1-DCA	487	5	5	
		ethyl benzene	302	5	5	
		1,1,1-TCA	100	5	5	
		xylene	1,608	5	5	

\* Based on Safe Water Drinking Act MCLs

areas, the installation of a truck unloading pad and roof, and aqueous treatment upgrades.

### EXPOSURE PATHWAYS

The most likely pathway for an impact to the environment would have been a release from a spill which may have migrated to the surface or ground water. In addition, humans could be exposed through the ingestion of contaminated ground or surface water.

### SELECTED REMEDY

The selected remedy for this site includes installing a single recovery well to pump contaminated ground water and treatment using air stripping followed by liquid phase carbon adsorption. Treated effluent will be discharged to a tributary of Dutch Settlement Creek. Spent carbon will be disposed of offsite. The total capital and start-up costs are approximately \$53,000, while operation and maintenance costs for the first year are approximately \$95,000.

### INNOVATIVE TECHNOLOGIES CONSIDERED

Both in situ and reactor bioremediation were considered for hazardous waste treatment. In situ

bioremediation involves the microbial degradation of contaminants within the soil/water matrix.

Bioremediation in reactors would consist of either mobile or fixed tank units into which contaminated ground water would be pumped. These methods were not selected primarily because the microorganisms do not react well to rapid changes of contaminants, total load, or flow rates. In addition, the inconsistent presence of high toxicity contaminants in the ground water can quickly destroy the biomass.

### PUBLIC PARTICIPATION

A public notice of the permits containing the corrective measures was issued July 19, 1991. There were no comments received on the EPA or NYSDEC permits. In addition a supplemental fact sheet and administrative record were made available to the public from August 18 to September 17, 1993. No comments were received during the specified period.

### NEXT STEPS

The specified corrective measures for ground-water contamination are currently being implemented. Remedial action for soil contamination will be examined at a later date.

### KEY WORDS

Ground water, VOCs, DCA, toluene, xylenes, air stripping, carbon adsorption, extraction, bioremediation (considered), offsite discharge, offsite disposal, onsite treatment

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