

US EPA ARCHIVE DOCUMENT

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

**REGION III
ID # 7768**

Quebecor Printing Atglen Incorporated
West Sadsbury Township, Pennsylvania
(Signed April 28, 1995)

Facility/Unit Type: Newspaper printing facility
Contaminants: Toluene, ethylbenzene, xylene, benzene, tetrachloroethylene, and bis(2-ethylhexyl)phthalate
Media: Subsurface soil and groundwater
Remedy: In-situ vapor extraction and volatilized gas treatment with activated carbon for the soil, and a groundwater pump and treatment system utilizing air stripping with granulated activated carbon and/or incineration for exhaust gases for the groundwater

FACILITY DESCRIPTION

In 1991, EPA issued an administrative consent order to Quebecor pursuant to §7003 of RCRA as amended, 42 U.S.C. §6973, which required that the facility perform a RCRA Facility Investigation (RFI) and a Corrective Measures Study (CMS). Results of the RFI, which was approved on March 25, 1994, concluded that the groundwater beneath the facility was contaminated with a number of volatile organic compounds (VOCs) including benzene, toluene, bis(2-ethylhexyl)phthalate, and tetrachloroethylene at levels above their maximum contaminant levels (MCLs). In addition, the subsurface soil from the underground storage tanks (USTs) and the railroad siding areas showed the presence of toluene, ethylbenzene, and xylene. The CMS was approved September 29, 1994.

Since 1990, Quebecor has operated a 15-acre printing plant on this 57-acre site. Quebecor prints color newspaper supplements using a rotogravure method. The facility includes printing process machinery, ink and solvent storage tanks, and drum storage areas. Quebecor operates a wastewater treatment plant at the facility. The site was previously owned by several other printing companies. Several interim measures have been implemented at the facility since 1985. These measures included installing a groundwater pump and treatment system to recover 500 gallons of

lactol that was spilled in the 1980's.

The facility is located in West Sadsbury Township, Chester County, Pennsylvania, and is boarded by railroad tracks, residences, and other light industries. Three residences are located within 1,000 feet of the facility. Two of these residences obtain domestic water supplies from the City of Coatesville. Groundwater is shallow and several surface water bodies are also located near the facility.

EXPOSURE PATHWAYS

The potential exposure pathway for contaminated subsurface soils is via leaching to the groundwater. The potential exposure pathway for the contaminated groundwater is via ingestion. The groundwater generally flows toward the southwest and discharges into Valley Creek. At the present time, EPA has determined that there are no on-site human receptors, because the groundwater beneath the facility is not used for any purpose.

SELECTED REMEDY

The selected remedies for remediation of the site will address elevated concentrations of toluene, ethylbenzene, and xylene in the subsurface soil and

CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume	Contaminant	Maximum Concentration (ppm)	Action Level	Cleanup Goal	Point of Compliance
Subsurface soil	2-11 feet	Toluene Ethylbenzene Xylene	1 above maximum concentration level	Not given	0.5 1.0 0.7	Not given
Groundwater	2-11 feet	Benzene Toluene bis(2-ethyl-hexyl) phthalate Tetrachloro-ethylene	1 above maximum concentration level	Not given	.005 1.0 .006 .005	Throughout the plume

elevated concentrations of benzene, tetrachloroethylene, and toluene in the groundwater. EPA is proposing in-situ vapor extraction and volatilized gas treatment with granulated activated carbon (GAC) as the preferred corrective measure alternative to remediate the soil in the railroad siding area at the facility. With respect to soil cleanup activities for the UST area, EPA proposes deferring to the Pennsylvania Department of Environmental Resources (PADER), because the facility is undertaking remediation for the UST area in accordance with PADER UST Closure Requirements, Act 32, Section 502(c), Storage Tank and Spill Prevention Act, July 6, 1989.

EPA is proposing to replace the groundwater pump and treatment system installed as an interim measure in 1985 with a new system that will treat the extracted groundwater via air stripping with granulated activated carbon filters and/or incineration for the exhaust gases. Treated groundwater will be discharged through an existing National Pollutant Discharge Elimination System (NPDES) permit. EPA is also proposing institutional controls (i.e., deed restrictions) to prevent the installation of on-site drinking water wells.

The preferred soil remedy is estimated to cost

\$177,000 capital and \$366,000 operations and maintenance (O&M). The preferred groundwater remedy is estimated to cost \$122,000 capital and \$1.1 million O&M.

INNOVATIVE TECHNOLOGIES CONSIDERED

The following innovative technologies were considered to remediate the contaminated subsurface soil:

In-situ soil vapor extraction using vertical and/or horizontal vapor extraction wells/trenches, with or without passive or forced air inlet wells;

Air spraying (sparging);

In-situ bioremediation utilizing injection wells, trenches, and/or surface infiltration to physically and chemically introduce oxygen and nutrients to the subsurface environment; and

Biological enhancement by soil venting augmented by nutrient/oxygen injection wells or trenches.

In-situ soil vapor extraction has been proposed as the preferred remedy to treat the contaminated subsurface soil.

NEXT STEPS

EPA will prepare a Final Decision Document and Response to Comments that will identify the selected corrective measures and address all significant written and oral comments. After public comments on the final decision document are considered, EPA will select a final corrective measure alternative for the facility, which Quebecor will then implement.

KEY WORDS:

soil, groundwater; ingestion; VOCs; carbon adsorption, air stripping, incineration, in-situ treatment, extraction; innovative technologies considered: bioremediation, air spraying, bioventing; innovative technologies selected: vacuum extraction; institutional controls, on-site treatment; interim remedy, O&M

PUBLIC PARTICIPATION

On November 23, 1994, EPA placed an announcement in the *Parkesburg Post* to notify the public of a public meeting on this Statement of Basis. The public meeting was held on November 29, 1994, in the Parkesburg Community Building Complex. The public comment period began on May 5, 1995, and ended on June 5, 1995.

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