



Statement of Basis: Former Univar Facility, Minneapolis

Resource Conservation and Recovery Act Corrective Action

Geographic/Hennepin County #15f • August 2009

Public comments are being solicited for corrective action remedies proposed and implemented for volatile organic compounds (VOCs) in soil and groundwater at the Univar facility in Minneapolis. The 45-day comment period begins August 26, 2009, and ends October 12, 2009.

Facility location

The former Univar facility is a 1.5-acre site located at 111 22nd Avenue Northeast in Minneapolis. Land use surrounding the site is a mix of commercial and residential. The site is bordered on the north by a commercial building; on the west by Burlington Northern Railroad and residential housing; on the south by Bottineau Park; and on the east by First Street Northeast and residential housing.

Facility History

- The Merchants Chemical Company owned and operated the facility as a chemical warehouse and distribution center from 1955 to 1958.
- The McKesson Chemical Company owned and operated the facility as a chemical warehouse and distribution center from 1958 to 1986. Between 1972 and 1986, McKesson also used the facility for the temporary storage of various spent solvents that were ultimately transferred to a recycling facility.
- The Minnesota Pollution Control Agency (MPCA) issued the facility a permit under Part B of the federal Resource Conservation and Recovery Act (RCRA) in February 1986. Van Waters and Rogers purchased the facility in November 1986.
- The RCRA permit was transferred to Van Waters and Rogers authorizing it to operate a hazardous waste container storage facility. Van Waters and Rogers operated the facility as a chemical warehouse, distribution center and temporary hazardous waste storage facility from November 1986 until early 1987.



- From 1987 to 1991, the facility was used only for the temporary storage of hazardous waste. Wastes were stored in 55-gallon drums both inside and outside the building. Four 10,000-gallon aboveground storage tanks were used for storing chemical products on the west side of the building, and six aboveground tanks were used to store chemicals north of the building. All the aboveground storage tanks were removed by 1990.
- In 1991, Van Waters and Rogers moved its operations to their facility in St. Paul. Van Waters and Rogers is a wholly owned subsidiary of the Univar Corporation, based in Kirkland, Washington, thus the site is now called the Univar site.
- The property is now owned by Walsh Real Estate holding, LLC. The current occupant of the property is Roofers Mart Incorporated of Minnesota, a commercial roofing-materials supply company.

Investigation and remedial actions taken

In the late 1990s the Univar site was investigated to potential contamination from former aboveground storage tanks on the property. The soil was contaminated with VOCs including tetrachloroethylene (PCE) and trichloroethylene (TCE). Shallow groundwater below the site also is contaminated with VOCs. Contaminated groundwater has migrated offsite to below and west of Bottineau Park.

In 2001, a soil vapor extraction (SVE) system was installed on the west side of the building to clean contaminated soil from the former tank area. In 2002, a second SVE system was placed on the east side of the building to further cleanup and limit migration of contaminated vapor towards residential properties. In 2004, further investigation into soil vapors was conducted at 38 temporary locations in an area bounded by California Street, Third Street Northeast, 24th Avenue Northeast, and just south of 19th Avenue Northeast. The soil vapor investigation showed that the levels and the extent of soil vapors directly correlate to groundwater contamination underlying the vapor areas.

Because of the soil vapor investigation, five additional SVE points were added on the property. Also in 2004, an SVE system was installed in Bottineau Park along Third Street Northeast between 19th and 20th. In 2004 and 2006, indoor air samples were collected from houses located directly east of the facility on the 2200 block on the east side of Second Street Northeast and

from lower-level apartments at 1929 Second Street Northeast. VOC concentrations measured in those samples were below levels of concern.

In 2008, two additional horizontal SVE lines were placed in Bottineau Park along Second Street Northeast between 20th and 22nd Avenue Northeast to prevent vapor migration towards those residences on the east side of Second Street Northeast. Ongoing monitoring of VOCs at permanent soil vapor monitoring points indicate that the SVE systems are successful in preventing vapor migration east of the facility and east of Second Street.

To date, Univar has installed 13 groundwater monitoring wells and probed at 47 locations in an effort to define the hydrogeology and the magnitude and extent of the groundwater contamination. They installed four SVE systems (with ten extraction points) in the area of the facility and on the entire east side of Bottineau Park. Univar installed 31 permanent monitoring points to ensure the effectiveness of the vapor extraction systems.

Univar is currently conducting additional soil vapor investigations in the residential areas west of the facility between Univar and the Mississippi River and between 19th and 23rd Avenue Northeast. Corrective actions in this area, if any, will be determined upon completion of the additional work.

Proposed Corrective Measures

In the Corrective Measures Study Report dated June 5, 2009, Univar conducted an evaluation of several different remedies for the contaminated groundwater, including:

1. no further action
2. monitored natural attenuation (MNA)
3. air sparging in the source area with MNA off site
4. hydraulic control in the source area with MNA off site
5. enhanced anaerobic dechlorination (EAD) of VOCs in the source area with MNA off site

Univar selected the remedy of enhanced anaerobic dechlorination of VOCs in the source area with MNA off site. The remedy is designed to stimulate naturally-occurring microorganisms in the source area that are capable of degrading chlorinated VOCs to non-hazardous end products, resulting in decreased mass

discharge of VOCs from the source area. The remedy will be implemented through the engineered addition of a soluble and biodegradable animal feed grade source of organic carbon to the source area. The organic carbon source will be a molasses-whey and drinkable water solution along with other amendments.

The treatment solution will be added on a periodic basis to the impacted water-bearing zone approximately 15-20 feet below ground surface. The solution will be added through a horizontal well or trench approximately 130 feet long and directly up gradient of the source area.

Performance monitoring will be conducted down gradient of the source area to assess the effectiveness of the remedy in achieving the objective of reducing mass discharge of VOCs from the source area. If necessary, Univar will bioaugment the groundwater with a mixed culture that is capable of dechlorinating PCE and TCE and their degradation products. Univar will continue to monitor concentrations of VOCs in groundwater and soil vapor off site as well.

In the event the EAD remedy does not achieve the desired objective of reducing the mass discharge of VOCs from the source area, Univar has proposed the use of hydraulic control. Hydraulic control would consist of a groundwater pump and treat system that would prevent further migration of contaminated groundwater from the source area.

Public comment period

As part of the corrective-action process, the MPCA is providing an opportunity for the public to comment about the proposed remedy. Submit written comments before 4:30 p.m. on October 12, 2009.

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After MPCA staff has reviewed public comments, the agency will:

- Prepare a response containing a brief summary of public comments.
- Explain the rationale for making revisions based on comments.
- Describe any modifications to the remedy, if applicable.

More information

Relevant reports and documents are available on the MPCA's Web site at:
www.pca.state.mn.us/cleanup/sites/ and at the MPCA.

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