



SVE System Up and Running; New Cleanup In Planning Stages

Hartford Area Hydrocarbon Plume Site
Hartford, Illinois

November 2007

You are invited to an open house

EPA representatives will be in Hartford to speak one-on-one with Hartford residents about the design of the new cleanup system. A draft of the plan for the installation of this new product removal system (called a multi-phase system) is available in the Hartford library for review. We would like to get your feedback on what has been accomplished so far as well as what yet needs to be done.

Date: Nov. 14, 2007

Time: 6 - 8 p.m.

Date: Nov. 15, 2007

Time: 11:30 a.m. - 1 p.m.

Place: Community Center
715 N. Delmar Ave.
Hartford

Revising the community involvement plan

In November, EPA will also be in town to meet with Hartford residents and officials to discuss current concerns. This information will be used to update our plan for communication between local residents and EPA. If you are interested in meeting with EPA, please contact Mike Joyce. (*See back page for Mike's contact information.*)

Information repository

You may review site documents at the Hartford Public Library District, 143 W. Hawthorne, Hartford.

Check out these Web sites:

www.epa.gov/region5/sites/hartford

www.epaossc.net/HartfordArea

www.atsdr.cdc.gov

The Hartford Working Group has completed the third phase of the expanded soil vapor extraction system in northern Hartford and is now testing a new system that can remove both vapor and liquid petroleum product. HWG consists of several oil companies that have agreed to clean up refined petroleum products in the ground under the supervision of U.S. Environmental Protection Agency and state partner Illinois EPA. The original SVE system built in the 1990s consisted of 12 extraction wells. With 118 wells, this new system is nearly 10 times larger. The wells have been placed at various depths covering different geologic layers throughout much of northern Hartford. SVE works by pulling contaminated vapors to a well and sending them to equipment on the refinery property called thermal oxidizers where they are destroyed. Having wells at different depths allows vapors to be extracted from various levels and from different types of soil where vapors may be trapped. To date, the equivalent of approximately 341,000 gallons of gasoline has been removed. Since the system fully went on line this summer, higher amounts of vapor are now being removed and treated. However, more SVE wells will need to be added in the future.

While this SVE system is up and running, a thorough operation and maintenance program will continue indefinitely. The system will be adjusted and improved as necessary. Staff is on-call 24 hours a day, seven days a week, and the wells are regularly cleaned and monitored to ensure they continue to work at optimum levels. In addition, hundreds of monitoring wells have also been placed around northern Hartford and are being sampled and monitored regularly to ensure the effectiveness of the system.

New cleanup system

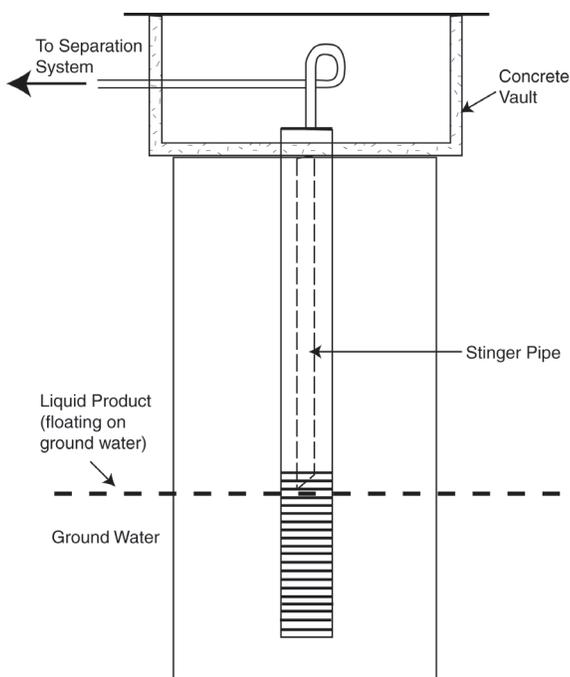
In addition to expanding the SVE system, HWG has agreed to design other ways to remove liquid petroleum products from the ground. HWG has proposed building a cleanup system that will remove both liquid and vapor. This system, called a multi-phase system using "high vacuum extraction," will be designed to remove liquid product from the ground as well as vapors. In preparation for the installation of this system, HWG has already begun installing a portion of the piping network. Pilot tests of this system were conducted in 2005 and 2006. Approximately 12,000 gallons of liquid product were removed with the pilot recovery system. The pilot tests showed that the most efficient removal system is a dual system that removes both liquid and vapor. Because the liquid product is trapped in the soil underground, it is difficult to remove. With the dual system, liquid petroleum product will be removed as much as possible and when no further liquid can effectively be removed, the system will continue to remove vapors. (*See the cross section of the multi-phase well on Page 2.*) That way, the system will be effective at removing both liquid and vapor contamination.

HWG is preparing to begin a larger pilot test of this multi-phase system in an area along Olive Street between Elm and Forest Streets. This section is called Area A (*see map on Page 3*). Up to five multi-phase extraction wells will be installed in this area. These wells will remove both liquid product and vapor as

well as a minor amount of ground water. The liquid and vapor will then be separated in a new underground vapor/liquid separator to be installed along Olive Street. The vapor will be piped through the existing SVE pipes and sent to the existing oxidizers for treatment. The liquid will go to an oil/water separation facility proposed to be constructed on the former tannery property. The oil will be collected and sent off-site for reuse and the water will be treated at a publicly owned water treatment facility.

If this larger multi-phase pilot proves effective, EPA envisions that additional multi-phase extraction wells will be installed around northern Hartford. (See map of multi-phase system on Page 3.) If this expansion is done, an additional permanent oil/water separation complex with additional vapor destruction equipment would be installed.

Cross-Section of Multi-Phase Well



This well consists of a pipe inside of another larger pipe. The inside pipe (called a stinger) is placed inside the larger pipe (the well) adjacent to the point in the ground where the liquid product is essentially floating on top of the ground water. This pipe applies vacuum to the soil and removes vapor, liquid product and a small amount of water.

Continuing to protect drinking water supply

As mentioned in previous fact sheets, HWG has installed five sentinel wells for the village of Hartford. These monitoring wells have been placed between the area of contamination and the village drinking water supply wells. The sentinel wells are routinely tested to ensure that no contamination reaches the village water supply. To date, no contamination has been found in the sentinel wells or municipal water supply wells.

Road repairs

Thank you for putting up with the disruptions caused by the construction of the expanded SVE system. EPA and HWG are aware of the inconveniences caused by this project and appreciate your patience. We are particularly familiar with frustrations surrounding the repair of the roads and ask for your continued patience. Because an additional multi-phase extraction system is expected to be installed within the next couple of years, current repairs on the roads around northern Hartford are intended to be temporary. HWG is working with the village of Hartford to develop a process to accomplish the final repairs to the roads once the multi-phase system has been installed.

Home assessments

HWG contractors continue to do home assessments to determine what measures should be taken to protect people from potential vapors that may enter their residences. To date, a total of 168 homes have been inspected with 137 of those homes having some form of protective measure already completed. These protective measures include: sealing cracks in building foundations, basements and crawl spaces; insulating and sealing ductwork; and installing ventilation systems. These measures are free to the homeowner and were explained in a fact sheet sent to residents in October 2004. That fact sheet is available on the EPA Web site at www.epa.gov/region5/sites/hartford/index.htm. HWG contractors are also continuing to maintain the systems already installed and make improvements and repairs as necessary. A monitoring plan has been approved for residential sampling. Also, an “event-based” monitoring plan is being developed to handle monitoring in the event of rising Mississippi River levels. HWG and EPA are working closely to develop a monitoring plan that will address issues that might arise.

If you have any questions or requests concerning in-home protective measures, please call EPA’s Mike Joyce at 800-621-8431, 9 a.m. – 4:30 p.m.

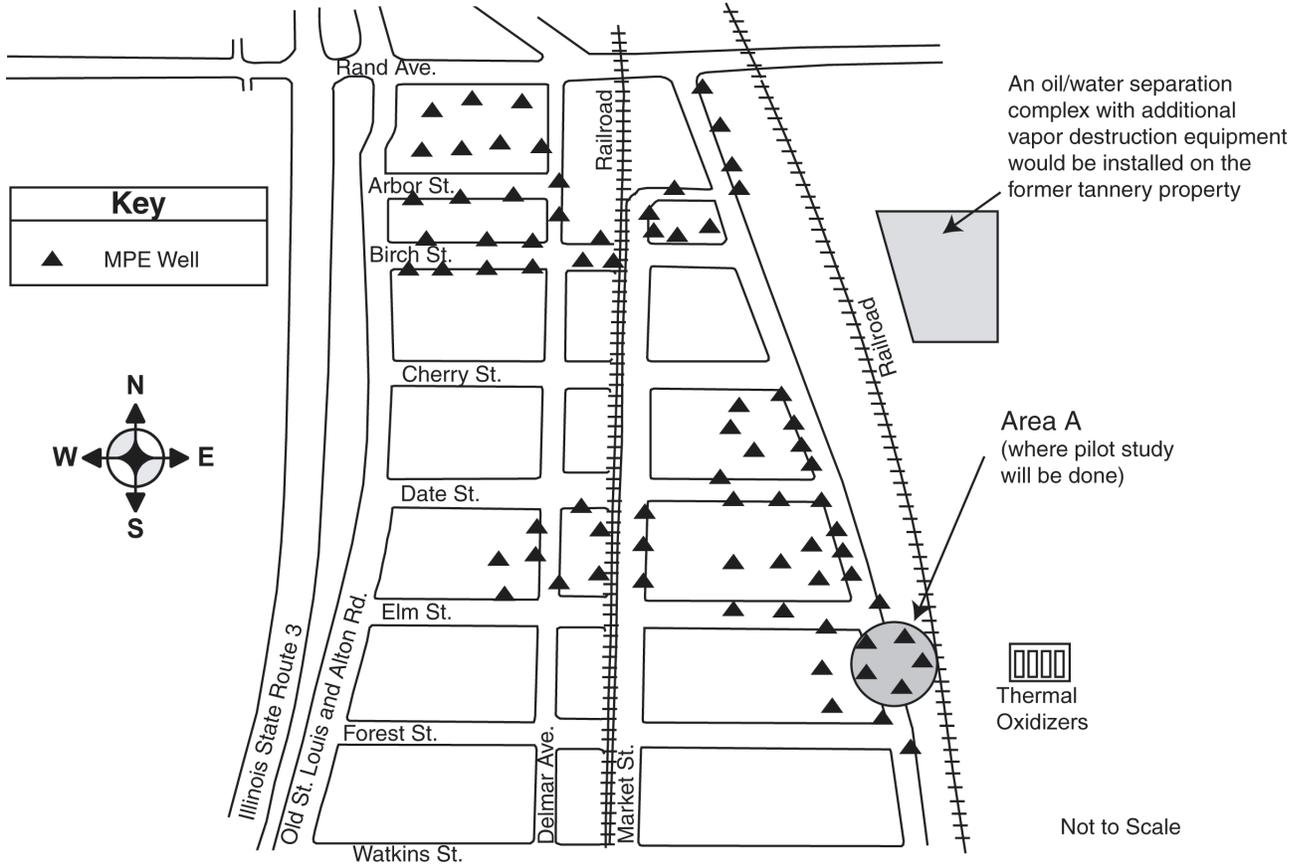
If you suspect vapors in your home ...

While the SVE system and the protective measures done in area homes should reduce the potential for vapors to enter homes, we still urge you to:

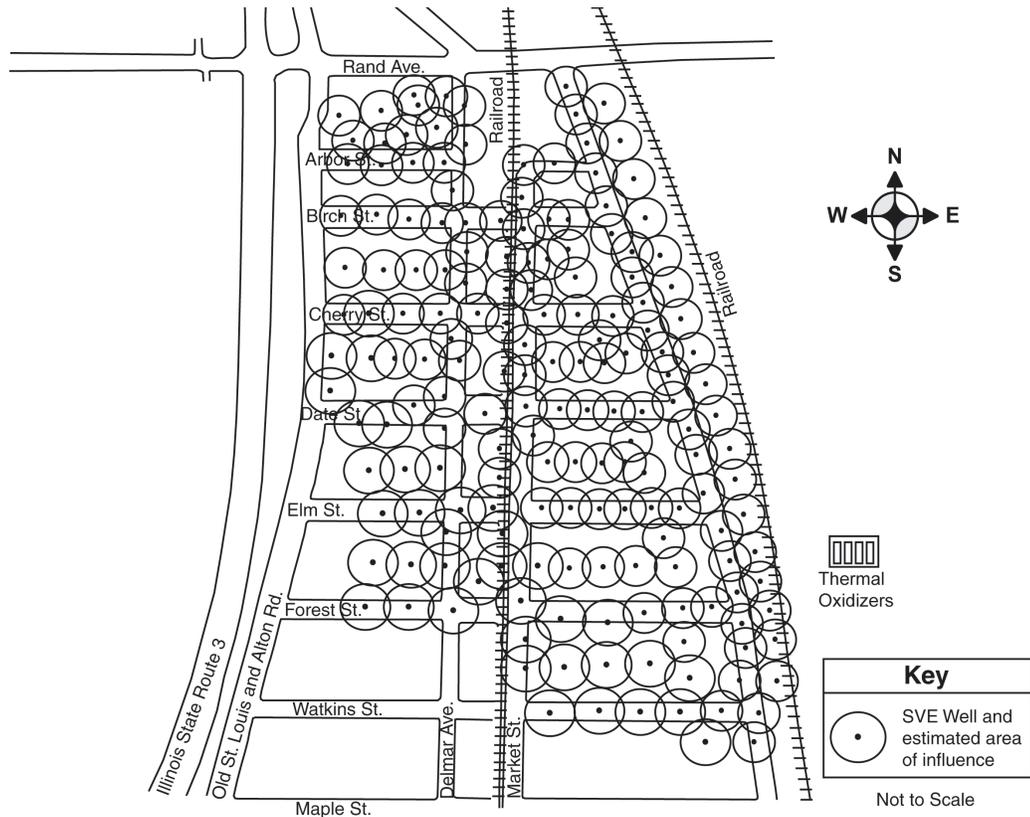
Call the Hartford Fire Department by dialing 911

if you smell or suspect vapors in your home. EPA and the Hartford Fire Department have developed a formal program to prepare for and respond to vapor intrusions through the 911 emergency notification system.

Map of Proposed Multi-Phase Cleanup System



Map of Existing and Proposed Vapor Extraction Wells Combined



For more information

For more information about the Hartford Area Hydrocarbon Plume site, you may review documents at Hartford Public Library District, 143 W. Hawthorne St., or on the EPA Web site at www.epa.gov/region5/sites/hartford/index.htm, or contact:

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**HARTFORD AREA HYDROCARBON PLUME SITE:
SVE System Up and Running; New Cleanup in Planning Stages**

United States
Environmental Protection
Agency
Region 5
Office of Public Affairs (P-19J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590



Hartford Area Hydrocarbon Plume Site

Detach, fold, stamp, and mail

Name _____
Address _____
City _____ State _____
Zip _____

Place
Stamp
Here

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Community Involvement Coordinator
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