

**United States Environmental Protection Agency
Region V
POLLUTION REPORT**

Date: Friday, August 18, 2006

From: Kevin Turner and Steven Faryan

To: Brian Schlieger, U.S. EPA Jason El-Zein, U.S. EPA
Kevin McCormack, U. S. Coast Guard

Subject: POLREP #9

Hartford Area Hydrocarbon Plume Site

N. Olive Street, Hartford, IL

Latitude: 38.8361210

Longitude: -90.0951620

POLREP No.:	9	Site #:	524
Reporting Period:		D.O. #:	
Start Date:	10/20/2003	Response Authority:	CERCLA/OPA
Mob Date:		Response Type:	Non-Time-Critical
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Assessment
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	
FPN#	E04503		

Site Description

Please refer to POLREP's #1 and #4 for details.

Current Activities

Response activities to date

After a series of meetings with the Hartford Work Group (HWG) respondents in the Summer/Fall of 2003, the U.S. EPA requested that Work Plans be submitted and site activities commence during negotiations of a final Administrative Order of Consent (AOC).

Representatives from U.S. EPA and Illinois EPA continue to meet with the HWG technical committee every other month in addition to bi-monthly teleconferences.

Vapor Related Activities

- Determined the status of current operations and maintenance activities regarding the existing soil vapor extraction (SVE) system including a series of vacuum tests to determine the vacuum influence exerted upon the vapor control boring's and corresponding vapor probes.
- Provided control of vapors into selected residential living spaces by interim protection measures.
- Continue to conduct investigation for petroleum pipelines and utility lines contaminant migration pathways and how they relate to the Mississippi River.
- Representatives from the ATSDR and the Illinois Department of Public Health (IDPH) have completed commenting on the Effectiveness Monitoring Program that the HWG submitted. The flow charts and documented are being modified to meet the needs of the ATSDR and Illinois Dept. of Public Health. The effectiveness monitoring has been on-going in the interim until the plan is finalized. An ATSDR fact sheet was developed to reflect the IDPH's air sampling results.
- The HWG submitted the Phase 3 SVE Expansion Technical Memorandum outlining the expansion of the Area Wide Vapor Extraction System in North Hartford. U.S. EPA is reviewing and will provide comments. Field Work is to begin September 4, 2006. Additional expansion of the Soil Vapor Extraction System is planned under this UAO and will be conducted under additional phases.
- To date, a total of 143 homes have been inspected for "needs assessment" purposes with 109 homes

having some form of interim measures performed out of 142 design packages completed at this time.

– On July 31, 2006, the HWG submitted the LNAPL Active Recovery 90% Design Report for expansion of the existing soil vapor extraction system. Multi-Phase Extraction (MPE) a.k.a. high vacuum extraction manifold piping construction will occur simultaneous to SVE with MPE well installations to follow in 2007.

Groundwater Related Activities

– HWG has installed 5 sentinel wells for Village of Hartford drinking water wellhead protection purposes. The wells are sampled quarterly and results reported to the agency's.

– Investigated the lateral extent of free product hydrocarbons with the HWG recommended random optical screening tool (ROST™).

– The HWG has presented conceptual site model (CSM) information. The CSM will be updated as data is collected and will help determine and measure the impacts to the area wide regional groundwater and Mississippi River.

– The pilot tests for free-phase product hydrocarbon removal using high vacuum removal technologies is complete.

– The U.S. EPA has a standing request for data and awaits updates to visual information depicting the vertical extent of the dissolved phase hydrocarbon plume. This conceptual site model (CSM) information is to be updated as new geotechnical and groundwater plume data becomes available.

– Dissolved phase well installations were completed in September, 2005. The Ground Water Investigation report was submitted to U.S. EPA in January of 2006. U.S. EPA has provided comments on the Ground Water Investigation Report and additional monitoring wells will be installed and sampled as part of these comments.

– On July 31, 2006, the HWG submitted the LNAPL Active Recovery 90% Design Report for construction installation of a LNAPL removal system using “high vacuum extraction” technologies. SVE expansion will take place ahead of multi-phase extraction (MPE).

– Initial installation of the manifold piping network will start in the Fall of 2006 with the construction installation of MPE wells to follow in 2007.

General Project Activities

– U.S. EPA has participated in the development of a formal program with the local fire department to prepare for and respond to vapor intrusions through the 911 emergency notification system.

– U.S. EPA Headquarter's Office of Superfund Remediation and Technology Innovation (ORSTI) provided a comprehensive report that included critical information regarding project geotechnical and geochemical requirements. The report also identified existing data gaps with the plume investigation including recommendations how to optimize the overall nature of the PRP conducted investigation activities, data objectives, and for both short-term and long-term project goals.

– Pipelines related to active petroleum barge loading operations along the Mississippi River will continue to perform annual tracer gas leak detection studies in addition to various past upgrades according to Department of Transportation regulated guidelines.

– Daily Mississippi River gauge data is collected and compared with site groundwater monitoring transducers to better understand the hydraulic connection of impacted waters of the State with the River, and, to better understand the potential threats to the Mississippi River via active and abandoned sewers and pipeline corridors leading to the Mississippi River and surrounding surface water bodies. Furthermore, water gauge data is used to understand the groundwater flow and migration towards the Mississippi River in comparison to the influences upon the regional groundwater pumping/consumption usage.

– The HWG Technical committee has committed to a schedule for both conference calls and personal meetings into early 2006. A revised schedule for 2007 is anticipated.

– The HWG Technical Committee has submitted the Remedy Selection and 90% design selecting multi-

phase extraction (MPE) to remove the LNAPL in North Hartford.

Community Relations Activities

– During the week of May 23, 2005, U. S. EPA went door-to-door to meet with homeowners who have yet to opt into the needs assessment program. U.S. EPA is confident that all new participants were identified by that effort and that little more can be done to increase homeowner participation beyond what is already being conducted by HWG agents.

– A U. S. EPA sponsored press release was conducted on May 25, 2005, in cooperation with the HWG community relations spokesperson. Future press releases are anticipated.

– U. S. EPA will deliver construction notices to residents affected by the construction schedule.

– U. S. EPA developed and mailed a “August, 2006 Fact Sheet” that was mailed to all residents in the Village of Hartford on August 2, 2006.

– The agencies will continue to disseminate information to the public as required and address any questions that may arise.

Planned Removal Actions

Please refer to POLREP’s #1 and #4 for details.

Next Steps

Vapor Related Activities

– Construction activities related to the Phase 3 Soil Vapor Extraction System (SVE) will begin in early September of 2006. Additional expansion of the system is planned and detailed in Technical Memo’s provided by the HWG.

Groundwater Related Activities

– The HWG has submitted the Ground Water Investigation Report to the Agency’s in January of 2006. The agency’s have provided comments to the HWG and additional investigation work is planned for the Fall of 2006 and in 2007.

– Quarterly monitoring of the sentinel wells is on-going.

– Monthly gauging of selected monitoring wells is on-going.

– A pilot test using high vacuum extraction technologies to remove free-phase floating oil from groundwater monitoring wells was completed in late July of 2006.

– The start of construction activities related to the LNAPL removal system is expected to occur the week of September 4, 2006. Initially, construction of the LNAPL removal system (MPE) will be the installation of buried manifold piping infrastructure with the extraction well installation to start in the Spring of 2007.

C. Enforcement:

– The Administrative Order on Consent (AOC) was signed on March 17, 2004 and became effective on June 24, 2004.

– Another former owner/operator of past refinery operations, Sinclair Oil Company, has enjoined the collaboration of the HWG and agreed to participate with past cost and future investigation work and hydrocarbon removal activities.

– U. S. EPA is supporting the United States Department of Justice (U. S. DOJ) in legal matters pertaining to another former owner/operator, Apex Oil Company, regarding participation with past and future costs associated with past hydrocarbon releases from refinery and pipeline operations.

Key Issues

– Residents represented by counsel have recently allowed oil company agents into the homes to perform the required initial needs assessment. Unfortunately, their counsel has not allowed the installation of vapor mitigation systems until further notice. (Ongoing)

– The current ceiling using OPA funds is \$ 1,138,262.00. As the project progresses, additional reimbursable monies will be needed from the oil pollution fund in order to maintain current level of effort. (Ongoing)

The investigation and potential site clean-up at the Hartford Area Hydrocarbon Plume Site is being performed by the Hartford Working Group (an RP group). At this time, the U.S. EPA is not privy to their costs. All Agency response costs including contractor costs associated with the project shall be fully refunded as prescribed in the AOC executed between U.S. EPA and the RP's.

response.epa.gov/HartfordArea