

United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Tuesday, November 7, 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 # 10 - On-going SVE System Expansion
Hartford Area Hydrocarbon Plume Site
N. Olive Street, Hartford, IL
Latitude: 38.8361210
Longitude: -90.0951620

POLREP No.:	10	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 documents have been 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. A "management of change" will be utilized to modify the plan if changing conditions so warrant. 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 has conditionally approved the plan. Phase 3A field work began on October 3, 2006. Additional expansion of the Soil Vapor Extraction System is planned under this UAO and will be conducted under additional phases of construction.

- To date, a total of 150 homes have been inspected for “needs assessment” purposes with 112 homes having some form of interim measures performed out of 146 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. At this time, USEPA is preparing comments with regards to the 90% design. The Multi-Phase Extraction [(MPE) a.k.a. high vacuum extraction] manifold piping construction has been delayed and will occur well after the Phase 3A SVE construction activities. HWG has proposed additional pilot testing with a proposed period of 180 days per pilot study area.

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 agencies.
- 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 the H2A mobile high vacuum removal technologies were completed during the summer of 2006.
- 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 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.
- Initial installation of the manifold piping network was initiated in the fall of 2006 with the construction installation of MPE pilot test 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 Headquarters’ 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 and hydrostatic 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 better 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 later in 2006.

- 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 an "August, 2006 Fact Sheet" that was sent to all residents in the Village of Hartford on August 2, 2006.
- A media event to disseminate information to the local television and newspapers occurred on November 2, 2006.
- The agencies will continue to disseminate information to the public as required and address any questions that may arise.

Planned Removal Actions

Vapor Related Activities

- Construction activities related to the Phase 3 Soil Vapor Extraction System (SVE) began in early October of 2006. Additional expansion of the system is planned and detailed in Technical Memo's provided by the HWG.
- Since making improvements to the existing SVE system, homeowner complaints related to vapor odors have dropped off significantly. USEPA will continue to monitor the HWG efforts to both install interim measures conducted inside the homes and expand the footprint of existing SVE system.

Groundwater Related Activities

- The HWG has submitted the Ground Water Investigation Report to the Agencies in January of 2006. The agencies 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.
- Construction of the LNAPL removal system (MPE) is forthcoming.

Next Steps

- The agencies will provide written comments with regards to the LNAPL Removal 90% Design submittal.
- Construction of the LNAPL removal system (MPE) is forthcoming.

Key Issues

- 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 refinery owner/operator, Apex Oil Company, regarding participation with past and future costs associated with past hydrocarbon releases from refinery and pipeline operations. A summary

judgment from the court case could occur as early as November of 2006 if appeals from Apex Oil Company outside counsel are not brought-forth to the court case. (Ongoing)

- 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)

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