

LNAPL Related Activities

Please refer to previous POLREPs for past free product (LNAPL) related activities.

A total of 27,540 gallons of petroleum LNAPL have been removed by skimming operations conducted between 2004-2014.

Multiple LNAPL recovery pilot studies have been conducted to determine how best to remove mobile LNAPL trapped beneath groundwater.

The UAO requires the responsible parties to test mobile-phase hydrocarbon recovery methods in a part of the Site. In November/December 2011, a multi-phase extraction pilot study was conducted to determine the efficacy of LNAPL removal under confined to slightly unconfined groundwater conditions.

Based on the results of that pilot study, the responsible parties are currently conducting an alternative study to determine if total-fluids pumping is a more effective method of recovering the LNAPL. This test began March 2014 and is intended to significantly reduce groundwater levels to a highly unconfined condition. Groundwater and vapor concentrations suggest a substantial LNAPL source remains.

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.

Daily Mississippi River gauge data is collected and compared with site groundwater monitoring wells and pressure 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.

Community Relations Activities

The agencies will continue to disseminate information to the public as required and address any questions that may arise. Development of new "Fact Sheets" and the dissemination of such to members of the public are anticipated for every phase of clean-up.

Documents maintained by the U.S. EPA in the official Administrative Record were up dated in April 2010. The Information Repository at the Village of Hartford Public Library was updated in June of 2010. Adobe (PDF) versions of the project documents are available for public review during normal visiting hours at the Village of Hartford Library located on Hawthorne Street

EPA developed an Area "A" Pilot Study Fact Sheet and distributed it to affected homeowners and other Village of Hartford stakeholders in November of 2013.

Enforcement Activities

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

U.S. EPA has concluded formal legal matters related to the United States Department of Justice in United States v. Apex Oil Company. On July 6, 2006, the United States District Court for the Southern District of Illinois granted the United States motion for partial summary judgment against the Apex Oil Company. The remaining issues were tried before the bench beginning January 7, 2008, with testimony completed on February 6, 2008. Ultimately, the U.S. DOJ/U.S. EPA received a favorable decision on July 28, 2008, which was confirmed by the 7th Circuit Court of Appeals on August 25, 2009. The Supreme Court denied Apex Oil's Petition for a Writ of Certiorari on October 4, 2010.

On July 20, 2010, U.S. EPA issued a Unilateral Administrative Order {(UAO) RCRA-05-2010-0020} to Apex Oil Company, BP America Inc., Shell Oil Company, Sinclair Oil Corporation, and The Valero Companies. The UAO is for work including implementation of a pilot test in Area "A", followed by continuous operation of a multiphase extraction system at that location, along with management of

recovered vapors and liquids at treatment facilities located east of the Village of Hartford on property owned by Shell Oil Company.

Planned Removal Actions

Vapor Activities

Tedlar bag samples will be collected to make adjustments for SVE optimization.

Collected data may be used to temporarily shut down or reopen wells along E. Watkins Street.

The Responsible Parties operate and maintain a Vapor Control System (VCS). The VCS includes, but is not limited to, the Hartford soil vapor extraction wells, interconnection piping, valves, well vaults, underground and main header vapor liquid separator systems, vapor extraction blower systems, and thermal oxidizer systems. The VCS serves the dual purpose of protecting residents from vapor intrusion while also recovering substantial volumes of volatilized LNAPL (nearly one million gallons to date). EPA anticipates that long term operation of VCS will be a key component in the LNAPL remedy for this site.

Groundwater Activities

Quarterly monitoring of the sentinel wells is on-going.

Semi-annual monitoring and gauging of selected monitoring wells is on-going.

The Responsible Parties are required to routinely sample, analyze, and report ground water data for a network of wells in the Village, including 5 sentinel wells. The primary purpose of the sentinel wells is to serve as an early warning system in the unexpected event hydrocarbons migrate toward the Village of Hartford's drinking water wells.

The Responsible Parties are required to continuously implement a in-home interim measures program including maintaining all in-home interim measures for vapor intrusion mitigation, performing periodic monitoring, and responding to situations arising under a Contingency Plan.

LNAPL Activities

A second LNAPL recovery pilot study is being performed to evaluate hydrocarbon removal technologies in support of the development of a Final Remedy. The work related to this pilot study will be performed per the July 2010 Unilateral Administrative Order.

By December 2014, EPA expects that the RPs will have completed the LNAPL recovery pilot tests, other nature and extent investigations, and have incorporated the data and findings into an updated Conceptual Site Model. Then, by late spring 2015, EPA expects to receive an updated Active LNAPL Recovery remedy for review and approval. Once approved, remedy implementation will begin.

Next Steps

Vapor Activities

Tedlar bag samples will be collected to make adjustments for SVE optimization.

Collected data may be used to temporarily shut down or reopen wells along E. Watkins Street.

The Responsible Parties operate and maintain a Vapor Control System (VCS). The VCS includes, but is not limited to, the Hartford soil vapor extraction wells, interconnection piping, valves, well vaults, underground and main header vapor liquid separator systems, vapor extraction blower systems, and thermal oxidizer systems. The VCS serves the dual purpose of protecting residents from vapor intrusion while also recovering substantial volumes of volatilized LNAPL (nearly one million gallons to date). EPA anticipates that long term operation of VCS will be a key component in the LNAPL remedy for this site.

Groundwater Activities

Quarterly monitoring of the sentinel wells is on-going.

Semi-annual monitoring and gauging of selected monitoring wells is on-going.

LNAPL Activities

A second LNAPL recovery pilot study is being performed to evaluate hydrocarbon removal technologies in support of the development of a Final Remedy. The work related to this pilot study will be performed per the July 2010 Unilateral Administrative Order.

By December 2014, EPA expects that the RPs will have completed the LNAPL recovery pilot tests, other nature and extent investigations, and have incorporated the data and findings into an updated Conceptual Site Model. Then, by late spring 2015, EPA expects to receive an updated Active LNAPL Recovery remedy for review and approval. Once approved, remedy implementation will begin.

Key Issues

As an interim measure, the current SVE system does not maintain 100% sub-surface control of petroleum vapors. The forthcoming remedy approach may include the addition of new vapor extraction wells along with the Area “A” Pilot Study for liquid petroleum capture and removal technology(s) best suited for site clean-up objectives.

response.epa.gov/HartfordArea