



Long-Term Stewardship Assessment Report

Motiva Enterprises

EPA ID #: VAD093952935

3800 Pickett Road Fairfax City, Virginia 22031

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Introduction: Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e, ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in two fold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

Site Background: Motiva Enterprises Terminal is located at 3800 Pickett Road, Fairfax City, VA 22031. The Motiva Terminal is one of four oil distribution terminals located on Pickett Road. The terminal has nine 1-2 million gallon above-ground tanks that supply petroleum to the region at a rate of about one million gallons per day.

An underground petroleum tank leak from the former Star Enterprise Terminal and now Motiva Enterprises LLC Terminal on Pickett Road was discovered in 1990. The leak had resulted in a petroleum-contaminated groundwater plume that extended 2000 feet from Pickett Road to the Mantua community. Under EPA's direction, construction of an interim groundwater remediation system to clean up the petroleum-contaminated groundwater began shortly thereafter and became operational in 1991. Subsequently, the system was expanded and modified to its current configuration in 2000 as the final remedy. There are two major components of the remediation system, one located inside the Motiva Enterprises Terminal (onsite system), and the other located in the Mantua community side (offsite system).

Current Site Status: EPA is the lead agency that provides oversight of RCRA Corrective Action activities at the Motiva Enterprises, which is an active and operating oil distribution terminal. Use of this facility has remained the unchanged throughout the Corrective Action program. The final remedy was to continue operation of an interim pump and treat system with the addition of 5 horizontal infiltration wells to flush contaminated groundwater to the extraction wells.. The remedial goal, as defined in the Final Decision, requires that groundwater be restored to drinking water standards, or that technological limits have been reached. The Final Decision further stipulates that partial or full shutdown of the system may only occur provided that such action will not pose unacceptable risks to human health or the environment.

After 18 years of clean up, resulting in substantial reduction of contaminants from the leak, EPA approved Motiva’s request for a temporary shutdown test of the Mantua (offsite) system to collect data. The data was analyzed to determine whether a permanent shutdown of the offsite system was warranted. Sub-slab soil vapor data demonstrated that there is no indication that vapor intrusion is posing unacceptable health risks to homes above the historical boundary of the plume. Ongoing groundwater monitoring indicated that natural attenuation continues to restore groundwater quality. Based on the test data and the recommendations, EPA approved a permanent shutdown and abandonment of the offsite system on August 20, 2013.

Long-term Stewardship Site Visit: On July 13, 2016 EPA conducted a long-term stewardship site visit with Motiva Enterprises to discuss the final abandonment plan for the offsite remediation system and assess the status of the onsite remediation system. The attendees were:

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Engineering Controls (ECs):

On-Site Groundwater Treatment System

The on-site groundwater system will continue to operate. In the near future, Motiva may submit a request for temporary suspension of operation for the on-site system. Following suspension of operation, data will be collected to monitor the rebound effect so as to determine if continuous suspension is warranted. The on-site system will remain in place for the foreseeable future and will not likely be permanently shut-down and abandoned.

Mantua Off-Site Groundwater Treatment System

The Mantua (offsite) system was turned off in 2009 after a four year post shutdown evaluation test was completed. The post shutdown evaluation confirmed that the groundwater system performance has reached diminishing returns and shutting down the system will not pose unacceptable risk to human health or the environment. The offsite system components will be partially removed and abandoned in place in accordance with permits issued by the Fairfax County Health Department and the Virginia Department of Transportation. The work is expected to begin in September and be completed by the end of 2016. Groundwater monitoring will continue until such time that the USEPA approves cessation and subsequent abandonment of remaining monitoring wells. The abandonment plan covers the offsite system only. The onsite system continues to operate.

Institutional Controls (ICs): No institutional controls required as part of the Final Remedy.

Financial Assurance: Financial assurance is not required.

Follow-up Activities: Public meeting with Mantua community regarding offsite system abandonment process to be held August 31, 2016.

Conclusion: No major EC/IC deficiencies have been identified. The current EC/IC have been implemented and are functional/maintained. EPA will continue to review groundwater monitoring and follow-up with Motiva on the status of the off-site system abandonment.