



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

June 11, 2015

*Certified Mail # 7003 2260 0005 8730 9213*

Mr. Joseph Buffone  
JBRL development Corporation  
Valley Village  
10243 State Route 85  
Kittanning, PA 16201

Re: Site Characterization Report /Remedial Action Plan Approval with Modifications  
Storage Tank System Release April 8, 2014  
Facility ID No. 03-06500  
Valley Village  
10243 State Route 85  
Kittanning, Armstrong County

Dear Mr. Buffone:

The Department of Environmental Protection (Department) has reviewed the document titled "Site Characterization Report/Remedial Action Plan, dated March 2015, for the release referenced above. The document was prepared by Insite Group, Inc. and submitted as a Site Characterization Report (SCR) and Remedial Action Plan (RAP) as required by 25 Pa. Code § 245.310 and § 245.311, respectively. You selected the residential Statewide Health Standard (SHS) as the remediation standard for soil, groundwater and soil gas.

The property has operated as a retail gasoline sales facility and convenience store since 1985. Fuel sales are supported by an Underground Storage Tank (UST) system comprised of two 6,000-gallon regular unleaded gas tanks and one 4,000-gallon premium unleaded gas tank that serve two dispenser islands. Site appurtenances include a canopy over the dispenser islands and a one-story building (with a basement) that houses the convenience store. The site is variously covered by concrete, asphalt, gravel and grassy areas. Public water and sewer service the site. The surrounding area is mixed open land, residential and commercial. Some strip mining has occurred in the vicinity.

Site characterization was started in March 2014 in response to the detection of strong petroleum odors and separate-phase liquids in the Tank 003 sump area during an upgrade of the tank system. Investigations have included soil borings, installation of groundwater monitoring wells, laboratory analysis of soil and groundwater samples, sampling of soil gas, aquifer characterization, exposure pathway analysis, data interpretation remedial alternatives screening and report preparation. The results of the site characterization are provided in the SCR and have been used to develop the remedial approach proposed in the RAP.

Site characterization has indicated the following conditions:

- There are no exceedences of the Direct Contact Standards (DCS) in any of the soil samples.
- Site soil samples indicate the exceedences of residential, used-aquifer, soil-to-groundwater, Statewide Health Standards (SHS) primarily in the area of, and downgradient from, the tank cavity. Benzene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene exceeded the standards in borings.
- The site monitoring wells have been sampled on numerous quarterly intervals. Groundwater monitoring in the shallow aquifer detected levels of benzene, ethylbenzene, MTBE, naphthalene, toluene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene above SHS (residential, used-aquifer) in downgradient wells during the groundwater sampling events. The contaminant plume extends some distance offsite.
- Three soil vapor sampling points were installed in areas near the contaminated soils and groundwater and in a location along a possible preferential pathway (utility corridor) to the building. There were no exceedences of the applicable screening criteria detected in the soil vapor samples.

The RAP proposes the following remedial activities:

- Excavation of impacted soils above the water table in the area impacted near the tank cavity. Excavation will also include some soils from below the water table in an effort to remove as much of the smear zone source material as possible. It is estimated that approximately 460 cubic yards of impacted material will be excavated and disposed offsite.
- PersulFOX<sup>®</sup>, a chemical compound that releases oxygen to enhance biodegradation of petroleum hydrocarbons, will be placed in the open excavation after confirmatory soil sampling is performed.
- A slurry of approximately 600 pounds of RegenOX<sup>®</sup>, a chemical compound designed to enhance biodegradation of hydrocarbons in a less acidic (strongly basic) environment, will be injected into the dewatered tank cavity. The tank cavity will be allowed to fill with groundwater. After approximately two weeks, the tank cavity will be dewatered to remove any un-reacted chemical and impacted groundwater.
- PlumeStop<sup>®</sup> Colloidal Biomatrix and ORC<sup>®</sup> will be placed at the downgradient end of the excavation. This material is designed to stop movement of contaminants downgradient by binding them in place and to then provide an oxygen source for the enhanced biodegradation of the hydrocarbons.
- After remedial activities are complete, four quarters of groundwater monitoring will be performed to assess the effectiveness of the remedial efforts.

The Department approves the SCR and RAP in accordance with Section 245.311(b)(2) with the following modification(s):

1. Any future groundwater modeling that is performed should use effective porosity rather than total porosity. Generally this will result in a faster moving plume; however, the end distance of travel often remains similar.
2. In Section 5.3.5 of the report there is a potential preferential pathway for soil gas entry into the building identified. Soil vapor sampling was performed adjacent to the pathway; however, the results do not reflect measurements in the actual preferential pathway. This condition should be addressed during remedial activities.
3. Sections 5.4.2, 5.4.3, and 5.4.4 of the report indicate that the exposure pathways are incomplete for groundwater, soils, and soil vapor. This is not true for the future utility worker. OSHA is cited as being protective but how is not defined. A Human Health Risk Assessment needs to be done for this exposure pathway.
4. Point-of-Compliance (POC) wells cannot be located offsite. MW-8 is acceptable (even though offsite) based on the presence of the steep slope at the property boundary. MW-10 is not acceptable based on its distance from the property line. The proposed locations for wells MW-13 and MW-14 appear that they will be suitably located for inclusion in the POC.

25 Pa. Code § 245.312(a) specifies that remedial action shall be implemented upon approval of the RAP according to the schedule contained in the RAP. Remedial action should, therefore, commence immediately upon receipt of this letter and proceed in accordance with the schedule in the RAP until the selected remediation standard is attained.

Remedial Action Progress Reports must be submitted to the Department in accordance with Section 245.312(b-d) by the 30<sup>th</sup> day of the month following the end of each quarter (April 30, July 30, October 30, and January 30). The final RAPR is submitted as part of the Remedial Action Completion Report. Your first RAPR should be submitted no later than July 30, 2015.

Failure to implement remedial action or submit complete progress reports in accordance with the schedule outlined above may result in enforcement action by the Department. If you wish to modify any part of this RAP or select a new remediation standard, you must prepare and submit a new or modified RAP to the Department in accordance with Section 245.312(e).

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of