



CASE STUDY

A Newterra Solution Proves to be Highly-Effective for a Superfund Site

Air Purification Systems helped with the clean-up of a site that was added to the EPA's National Priorities List (NPL) in 1990.

Market Served: Sanitary Landfill Superfund Site
Application: Remediation Systems & Equipment
Location: Pasco, WA
Challenge: Emissions Treatment/Air Purification
Solution/Service: Soil Vapor Emission System

Summary

Newterra Air Purification Systems are removing the contaminated air at a rate of six (6) air changes per hour. Each system can treat up to 20,000 cfm (cubic feet per minute). Newterra NIXTOX™ Box (NB20) Vapor Phase Adsorbers are ideal for high-flow air purification applications that require a large activated carbon bed capacity.

The Client

The Pasco Landfill is about 1.5 miles (2.4 km) northeast of the City of Pasco, Washington and covers nearly 200 acres and is surrounded by agriculture and commercial businesses.

The Challenge

Newterra was contracted to treat emissions from a sanitary landfill where an estimated 35,000 55-gallon drums were disposed of that contained solvents, paint sludges, cleaners, and other hazardous waste. A portion of the site to be remediated was covered with a temporary structure.

The Solution

In soil vapor extraction remediation, the contaminated vapors are drawn from the soil via a vacuum pump and passed through an adsorber containing the appropriate adsorbent. The discharge temperature from the vacuum pump can reach 140+ °F (60 °C).

To achieve optimal adsorption of organics on the carbon and to prevent ignition of the organic-laden activated carbon, the adsorber is located on the suction side of the pump.

Not only do these vapor phase adsorbers curb volatile organic contaminants (VOCs) facilities that use thermal oxidizers as their primary VOC containment solution can realize cost savings by adding activated carbon adsorbers to capture emissions during non-peak emission times. The cost of using natural gas to incinerate VOCs can be expensive. Vapor Phase adsorbers are cheaper to maintain and electric blower systems are the only component in the process that requires power.

Newterra provides soil vapor extraction equipment that is used during the dual phase process of liquid and vapor filtration removing volatile and semi-volatile compounds. Vapor phase soil vapor extraction adsorbers include Newterra's PDB, EVP, and EV lines. Also, Newterra Liquid Phase Adsorbers are ideal to treat condensate generated by soil vapor extraction. With a large, in-stock inventory of equipment available for sale or ready to rent as soon as you are ready.

What's Your Unique Water Question?

Contact us at [+1 800.420.4056](tel:+1800.420.4056) to solve your most challenging water issue.



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