

Large Manufacturing Facility Addresses Migrating cVOC Plume with Geo-Seal®

Project Highlights

- Geo-Seal®'s triple-layer protection consisted of spray-applied membrane encapsulated with HDPE providing chemical resistance and ease of application
- 100,000 ft² of barrier successfully installed in 10 days, saving the owner three weeks of costly labor compared to the originally specified PVC sheet
- Smoke testing procedure ensured integrity of barrier and installation

Project Summary

A 104,000 square foot manufacturing facility required the use of a vapor barrier due to migrating chlorinated solvents in groundwater from a nearby plume. In addition to the vapor barrier, a 30 mil battened and welded PVC sheet was also specified for enhanced protection which required an extended installation time. Five weeks were estimated to install the PVC sheet due to a complex 20,000 square foot office area adjacent to the manufacturing facility.

To save time while delivering a safe and effective solution, Geo-Seal Vapor Intrusion Barrier was installed and eliminated the need for the PVC sheet installation. Geo-Seal contains a triple layer protection that includes a 60 mil spray-applied asphalt/latex layer encapsulated with two layers of high density polyethylene, providing a system that is chemically resistant yet easy to install.

Our certified applicators implemented a smoke test for quality control to identify any voids not seen by the naked eye to ensure the integrity of the membrane. The Geo-Seal system was successfully installed in ten days, saving the owner three weeks of costly labor.

Technology Description

Geo-Seal is a gas vapor management technology designed to eliminate vapor intrusion on Brownfields or any type of environmentally-impaired site. Geo-Seal is a chemically-resistant material placed between the foundation of the building and the soil pad to eliminate vapor intrusion pathways and stop contaminant vapors from permeating through the slab.

By deploying Geo-Seal, developers can ensure a healthy indoor environment while reducing the cost of site remediation and expediting site construction.



Site Details

Site Type: Manufacturing facility

Contaminant of Concern: Chlorinated solvents

Vapor Intrusion Solution: Vapor intrusion barrier

Treatment Area: 104,000 ft²

Technology Used:  **Geo-Seal**
Vapor Intrusion Barrier