

Mitigating the Risk of Methane Vapor Intrusion at New Building Construction in Florida

Mitigating against methane vapor intrusion (VI) is a necessary step to protect future occupants and safeguard the investment when constructing a new building in Florida. Many areas in the state have a history of industrial and landfill usage that creates pathways for methane migration in the subsurface. As new development further encroaches onto these areas, proactively addressing potential methane VI risk during the early stages of a building project becomes even more necessary.

Effective Methane Mitigation Solutions

Multi-Acre Tampa Logistics Center Protected from Methane

A new, expansive logistics center in Tampa, Florida, was the site of a former brownfield, where past operations resulted in methane in the soil gas, requiring a cost-effective solution to mitigate the potential VI risk. After reviewing multiple options, the project team ultimately selected the Nitra-Seal® Nitrile-Advanced Contaminant Vapor Barrier and TerraVent™ Low Profile Venting System.



Considering the site conditions and level of contaminant risk, Nitra-Seal was viewed as the best available, most cost-efficient technology for the large logistics center. With a foundation approaching a quarter million square feet and a tight project schedule, Nitra-Seal's nitrile-modified spray-applied core results in faster installations while providing superior chemical protection, separating it from other VI systems considered. Land Science's technical expertise and support in the VI mitigation design process were also critical factors in the selection process.

Methane Effectively Mitigated at Two-Million Square Feet Warehouse Development in Southeast Florida

One of the largest industrial warehouse developments in the greater Miami market needed to mitigate against methane as the development was built atop a former landfill. The design engineer specified the MonoShield® vapor barrier system as part of the methane mitigation system, receiving approval from Miami-Dade County, Department of Environmental Resources Management as an appropriate solution to address the VI risk.



MonoShield was selected as the vapor barrier for this project due to its unique combination of superior methane transmission data and its ability to withstand construction activities at a large-scale warehouse development project. MonoShield will protect 10+ buildings in the complex, totaling over two million square feet when completed.

Land Science Experience and Vapor Barrier Offerings

Land Science VI mitigation specialists offer decades of experience in assisting developers, property owners, and environmental engineers in mitigating VI risk from methane and other volatile compounds. The Land Science team has earned a reputation in the industry for providing superior expertise, service, and technical support to successfully navigate all aspects and phases of a VI mitigation project.

Land Science offers a suite of vapor barrier technologies to meet any building construction project's site conditions and VI risk mitigation goals.



MonoShield® is a chemically resistant and easy-to-apply barrier designed as a preemptive VI mitigation solution, ideal for large warehouses and retail developments.



Nitra-Seal® contains dual chemical resistant layers and a spray-applied nitrile-core, combining excellent chemical resistance with constructability.



TerraShield® incorporates protective metalized sheets and a nitrile-modified spray-applied core to provide the highest level of chemical resistance.



Retro-Coat® is a protective and durable coating system offering one of the only solutions for protecting existing structures against methane VI risk.

Besides offering the most chemical resistance of any product class, Land Science's VI mitigation solutions are backed by Land Science's Certified Applicator program, which follows strict QA/QC protocols for every installation, according to each product specification.



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Why Partner with Land Science

- Expertise
- Tailored Solutions
- Best-in-Class Technology
- Certified Applicator Network Ensures Correct Installation
- Proven Track Record