

Response Action Outcome Issued by LSRP for New Jersey Child Care Center Following Successful Installation of Geo-Seal[®]



Project Highlights

- New Jersey Department of Health Issued Safe Building Interior Certification for Child Care Center.
- Over 45,000 sq feet of Geo-Seal installed, ensuring a high level of vapor protection and meeting strict regulatory standards.
- The vapor barrier met the requirements of the New Jersey Vapor Intrusion Technical Guidance and allowed construction to remain on schedule.
- Indoor air sampling was conducted in conjunction with the close out of construction activities verifying the vapor barrier was performing as specified. The developer was able to open the child care center on time, generating revenue from the leasehold tenants.



Project Summary

The former building site was used for numerous commercial and industrial operations. Lisko Environmental was contracted by the client to remediate the site in order to make way for a new mixed-use building. During this site's redevelopment, the building site was razed in order for a new building to be constructed in the same footprint. This new building is a mixed use development for two tenant spaces: trampoline park and child care facility. During the initial phases of redevelopment, an off-site source of cVOC's was identified and suspected to be migrating towards the site. After further inspection, the developers found that there were dissolved phase cVOC's present beneath the site at levels well above the NJDEP's groundwater vapor intrusion screening levels.

Site Details

Site Type:

Former Industrial Site redeveloped for mixed use with sensitive population

Contaminants of Concern:

Chlorinateds (PCE, TCE, c-DCE, VC)

Treatment Area: 45,000² of Geo-Seal

Remediation Approach:

Semi-passive vapor mitigation system and Geo-Seal vapor barrier

Technology Used:

 **Geo-Seal**[®]
Vapor Intrusion Barrier



Project Summary Continued

In order to prevent harmful vapor intrusion, the new building was designed and constructed with 45,000 square feet of Geo-Seal and a passive vapor mitigation system. This Vapor Mitigation System (VMS) was installed in conjunction with construction activities in order to meet construction milestones in a timely manner. The VMS is passive consisting of a vapor barrier and sub-slab vent piping extending above the roof line fitted with turbine caps. No other mechanical components such as motors or vacuum blowers were necessary at this time, however this system could become an active VMS if needed in the future.

Technology

Geo-Seal is a vapor intrusion barrier which is placed between the foundation of the building and the soil pad. Geo-Seal is a three part system which combines two layers of chemically resistant high-density polyethylene (HDPE) with a spray applied core layer. This system prevents harmful vapors from permeating through the slab allowing developers to ensure a healthy indoor environment. Installing a Geo-Seal system offers developers a lower total cost to remediate and allows projects to move forward in a timely manner.

Results

The Geo-Seal vapor barrier was installed and smoke tested by Edgeboro, International Inc., a licensed Geo-Seal installer. With this barrier in place, the Licensed Site Remediation Professional (LSRP) issued a Response Action Outcome (RAO) letter for the Site and the developer was issued a Safe Building Interior Certification which meets the requirements of the New Jersey Department of Health and the Department of Children and Families Services allowing the child care facility to obtain applicable licenses and the developers to generate revenue from the tenants without delays caused by environmental problems.

About Lisko Environmental

With 20 years of consulting experience, Lisko Environmental specializes in the assessment, remediation, and management of environmental liability. Lisko Environmental assists clients to assess their environmental liability, address the problems and close out the issues as quickly and as efficiently as possible. Lisko Environmental acts as their client's advocate. Serving clients from Maine to Virginia, Lisko Environmental works in both the private and public sector, on Brownfields, Greenfields and everything in between.