

# BBJ Group Experience Overview

## Vapor Intrusion

### BBJ Group Practice Areas

#### Remediation and Site Restoration

Real Estate and Transaction Support

Regulatory Compliance Assistance

Risk and Liability Management

Ecosystem Services and Sustainability

### Mitigating Vapor Intrusion Risks

BBJ Group helps identify, quantify, and mitigate vapor intrusion risks. Vapor intrusion occurs when volatile organic compounds in soil and groundwater enter buildings as vapors and create health and safety risks for the occupants. Vapor intrusion can occur at any property, including active and shuttered factories, gas stations, strip-mall dry cleaners, and others. Vapors can also encroach on neighboring sites, such as residential and commercial properties.

Vapor intrusion creates financial risks regarding the safety, value, use, and marketability of affected properties. New, overlapping, and sometimes contradictory vapor intrusion regulations catalyze these concerns by increasing awareness – and disagreement – regarding the risk. Adding to the concern is the possibility of personal injury claims from tenants or third parties alleging vapor exposure.

BBJ Group is able to navigate these complex issues and reach practical, sound, and cost-effective solutions for our clients. Where soil gas sampling is impractical, BBJ Group uses non-intrusive flux chamber surveys to understand the subsurface conditions that may be affecting indoor air. These surveys can be conducted prior to acquisitions and without breaking ground, making this a convenient solution for leased spaces.



### VAPOR INTRUSION SERVICES

- Meet regulatory requirements
- Assess risks to building occupants
- Identify sources of vapor intrusion
- Reduce overall project cost
- Design a comprehensive risk mitigation plan
- Minimize risk exposure
- Assess vapor encroachment potential
- Stay ahead of evolving standards
- System design and installation



# Vapor Intrusion Services



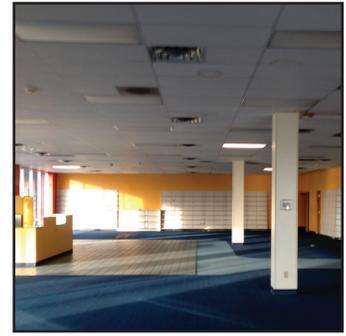
**Site Investigation  
Former Glass  
Manufacturing Facility**

BBJ Group managed cleanup and vapor intrusion issues for a glass manufacturing site in New Jersey. The NJDEP determined prior cleanup efforts by another consultant were insufficient to address VI and other risks. BBJ Group performed sub-slab soil-gas and indoor air sampling to assess the vapor intrusion pathway in 23 buildings, including off-site residences and commercial properties.



**Vapor Intrusion Study and  
Mitigation Installation**

During acquisition due diligence of a manufacturing facility in the Chesapeake Bay watershed, BBJ Group identified free phase at an adjacent site. BBJ Group performed a soil DNAPLs gas survey and indoor air investigation, identifying potentially harmful levels of TCE vapors affecting the building. BBJ Group designed and installed a sub-slab depressurization system, reducing TCE concentrations to EPA-approved levels.



**VI Risk Assessment  
Commercial Retail Stores  
Multi-site U.S.**

BBJ Group provides vapor intrusion services for multiple national commercial clients. One company is a telecom retailer with leases across the U.S. BBJ Group has developed methodologies to evaluate vapor risks and support successful lease negotiations, making landlords aware of vapor issues while offering practical solutions that address our clients' H&S and risk mitigation requirements.

## Other Recent Experience

FACILITY TYPE	LOCATION	Flux Chamber Surveys	Risk Screening	Johnson & Ettinger Modeling	Work Plan Design & Implementation	Transaction Support	Regulatory Compliance	Evaluation of Off-site Impacts	Public Notification	Long-term Monitoring	Vapor Mitigation
Public Redevelopment Project	Lyons, IL	✓	✓	✓	✓		✓				✓
Pharmaceutical Packaging Plant	Centralia, IL	✓	✓	✓	✓	✓	✓				
Industrial Brownfield Redevelopment	Chicago, IL		✓	✓	✓	✓	✓				✓
Former Truck Yard	Markham, IL		✓		✓	✓	✓				
Commercial Retail Stores	Multi-site in the US	✓	✓	✓	✓	✓					✓
Glass Plant	Millville, NJ		✓		✓	✓	✓	✓	✓	✓	
Automobile Rim Manufacturer	Rancho Dominguez, CA		✓			✓					
Former Tool Manufacturing Plant Superfund Site	Frankfort, NY		✓		✓	✓	✓	✓	✓		
Self Storage Facility	North Hempstead, NY		✓		✓	✓	✓	✓		✓	
Industrial Park	Carolina, PR		✓		✓		✓			✓	
Plastics Manufacturing Plant and Landfill	Mays Landing, NJ		✓	✓		✓	✓		✓		
Former Auto Shop Scrap Yards	Multi-site in Indiana		✓		✓		✓	✓			