

Strategic & Technical Solutions for the

# Insurance Industry



vertex markets  
insurance carriers & law firms

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**Forensic Services**  
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**Litigation Support**  
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**Environmental Liabilities**  
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**Claim Management**  
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**Loss Control Support**  
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**VERTEX®**



# Complex challenges resolved.

To insurers, evaluating claim and underwriting assignments swiftly and accurately is essential—regardless of complexity. VERTEX helps insurance companies, syndicates, third-party administrators, attorneys, underwriters and risk managers meet these challenges with remarkable efficiency and success.

To clients, VERTEX offers a history of excellence in the environmental, forensic services, air quality, and energy markets. Our outstanding reputation stems from the depth of our expertise and a rigorous focus on responsive, personalized service.

VERTEX **Solutions** for  
Insurance Companies in the following industries:

- Real estate
- Construction liability
- Oil & gas
- Underground storage tanks
- Environmental liability
- Homeowner's insurance
- Renewable energy
- Contractor liability



## Services

### Reporting

Cause & origin investigation  
Site investigation & inspection  
Contract & document review  
Problem assessment  
Damage investigation  
Subrogation analysis  
Causation, liability and expert reporting

### Correction

Property protection  
Repairs & liability allocation  
Competitive bid retention  
Property reconstruction monitoring

### Dispute Resolution

Affirmative claims review  
Defense preparation  
Claims negotiation & preparation  
Issue avoidance  
Mediation, arbitration & litigation administration

## Expertise

VERTEX offers broad-ranging experience in cause and origin, and extent-of-damage investigations.

Structural failure  
Mechanical failure  
Water intrusion  
Fire  
Masonry  
Roofing systems  
All exterior cladding types  
Framing  
Building movement  
Expansive soil



## South Carolina Construction Defect Claim

VERTEX was retained by an insurance carrier to review potential design errors and construction defects for a metal building collapse in South Carolina. VERTEX's forensic engineers provided the structural investigation immediately after the collapse. VERTEX identified both design omissions in the plans and shop drawings, and construction defects attributed to the collapse.

**Forensic Services** | Construction is fraught with risk and mistakes are common. In a litigious environment marked by shrinking industry margins, clients rely on VERTEX to determine potential causes for error and manage the fallout from claims.

VERTEX has worked on construction portfolios with values in the billions of dollars. As a result, we are uniquely positioned to help insurance clients effectively manage construction defect, general liability, professional liability, premise liability, product liability, property damage, and subrogation claims. We provide expert guidance on complex projects.

**Litigation Support** | VERTEX's forensic services are comprehensive and include investigating the nature and extent of damage from sub-standard workmanship, design error and omissions, and material deficiencies. We also help clients assess and allocate liabilities and evaluate plaintiff declarations to determine reasonable costs. VERTEX is unique in that we can tender our cost-of-repair reports as formal bids to complete the work. This verifies the legitimacy of our estimates and promotes fair settlements.

VERTEX manages construction defect claims involving:

- University buildings
- Correctional facilities
- Government & municipal structures
- Infrastructure projects
- Medical & educational facilities
- Mid-rise & high-rise towers
- Resort, casino, hotel & hospitality developments
- Retail centers
- Condominiums & multi-family developments
- Single-family developments



VERTEX manages catastrophe and property damage claims involving:

#### Building Envelope

Rain & water intrusion  
Hail & roofing systems

#### Structural

Wind & wind-borne debris  
Ice/snow  
Earthquake  
Wave & tsunami  
Fire

#### Mechanical

HVAC

#### Environmental

Oil & hazardous material releases

#### Air Quality

Mold, asbestos, dust & lead  
Smoke damage

**Catastrophe** | Natural disasters present complex logistical challenges related to severity, volume and assignment tracking. With VERTEX, clients benefit from an outstanding natural disaster response program known for its technical accuracy, prompt delivery, defined capacity and volume management. Our team responds swiftly and deliberately to major earthquakes, hurricanes, wildfires and tornadoes.

VERTEX uses web-based collaborative solutions to streamline and accelerate communications. Our target is reducing reporting cycles so our clients can make timely decisions. Whether we are assessing structural damage, identifying contributing causes or directing repairs, the outcome is always the timely resolution of the claim.

**Property Claims** | VERTEX helps insurance clients manage a wide range of perils related to natural causes and human error—such as inclement weather, accidents, mechanical failures and vandalism.

Our engineers, forensic scientists, estimators and building analysts have investigated thousands of incidents resulting in property damage and liability claims in all 50 states, DC, Canada, Mexico and across Latin America. Our team understands the importance of conducting a thorough technical investigation with rapid report turnaround within a specified budget. Our global practice is growing and focuses on damage resulting from natural disasters and strife.

**Repair Protocol and Cost Estimates** | VERTEX is unique in providing repair protocols and cost estimates. In addition to our team of forensic experts, VERTEX's capabilities include providing full-service structural design and also serving as the general contractor (GC) for surety projects. Our design experience provides the basis for our repair recommendations, and our GC experience provides legitimacy to our cost estimates.

**Fire & Explosion Consulting** | Property claims require a myriad of expertise—from design and engineering to environmental specialties. VERTEX is pleased to offer fire and explosion cause and origin consulting amongst our services to insurance carriers. We understand the need for timely, thorough and well-supported fire scene evaluations.



## Services

### Pollution

- Claim cause & origin investigations
- Claim invoice reviews
- Claim monitoring
- Claim management
- Remedial option feasibility analysis
- Soil, groundwater & air testing
- Standard-of-care evaluations
- Litigation support

### Air Quality

- Impact assessment
- Cause & origin analysis
- Ventilation & mechanical system defects

### Natural Resources

- Trustee claim review
- Extent-of-impact evaluation
- Habitat equivalency analysis
- Restoration scalability review
- Resource impact evaluation (wildlife & recreation)

### Remedial Cost Cap Policies

- Remedial approach evaluation
- Change order review
- Cost-to-complete evaluation

## Expertise

Our experience managing the fallout from environmental exposure is extensive:

- Oil and hazardous material from storage tanks, pipelines & industrial facilities
- Transportation & marine spills
- Polychlorinated biphenyls (PCBs)
- Contractor & professional errors
- Mold, asbestos, dust & lead
- Landfills & recycling



**Environmental & Pollution Liabilities** | For well over a decade, insurance clients have relied on VERTEX to successfully support claim and underwriting assignments involving pollution, air quality, natural resource damage and remedial cost-cap policies. Our services are wide ranging—including cause and origin investigations, underwriting support, claim invoice review, extent-of-impact evaluations, claim monitoring and management, and litigation and technical support.

Thanks to the technical diversity and advanced skills of our environmental scientists and engineers, there is virtually no challenge VERTEX cannot address with exceptional urgency and cost-efficacy. We respond to leaking tanks, pipeline failures, spills caused by natural disasters, explosions, collapsed impoundments, transportation spills and accidental emissions. We are also experts at monitoring costs and evaluating liability. The result is sound management and mitigation of loss.

**Air Quality** | VERTEX provides significant benefits and competitive advantages for your business with respect to identifying and/or managing potential hazards associated with asbestos, indoor air quality, lead, mold, and health and safety. Whether your mission is to renovate or demolish existing structures, ensure a healthy and safe work environment, or address concerns of potential exposure to toxic elements, VERTEX can help you identify, implement, and achieve your goals in a timely and cost-effective manner.



# VERTEX Loss Control Services

- Underwriting assistance
- In-depth exposure assessment
- Loss control surveying
- Carrier representation
- Policy review
- Risk management & financing
- Technical interpretation

## Loss Control and Risk Management Services | VERTEX

helps identify exposures by evaluating risks associated with our clients' projects, structures and business operations. Our risk engineers and loss control professionals offer extensive experience performing risk assessments and due diligence studies for construction, commercial, industrial and environmentally sensitive operations.

We work closely with insurance underwriting professionals and industry risk managers to provide them with the resources to effectively coordinate risk management strategies. From desktop document reviews to comprehensive on-site inspections, VERTEX offers value-added services to help insurance companies prevent losses and/or diminish exposures to both the insurance company and the insured—including construction contractors, building owners, industrial operations and material managers.

## Former Indiana Army Ammunition Plant Clark County, Indiana

VERTEX was contacted by an insurance carrier to research and characterize risks associated with the former Indiana Army Ammunition Plant. The site, a nearly 10,000 acre property that had operated as a munition manufacturing plant and storage depot from 1941 to 1998, was in the process of being divested. As of 2011, 143 acres were classified as improved grounds, 635 acres were classified as semi-improved grounds, 6,202 acres were classified as unimproved grounds, and 2,810 acres were classified as commercial forest. The site was formerly known as the Indiana Army Ammunition Plant (INAAP) and was a Government-Owned, Contractor-Operated military industrial facility.

Documents were provided from the insurance carrier, and appropriate authorities, and the insurance broker. Information provided to VERTEX for the risk characterization included among other things: Existing Conditions; Demolition Plans; Environmental Site Assessments; No Further Action Plans; Sampling Plans; Regulatory Correspondence; and the insurance carriers' documents. Upon receipt, VERTEX expedited the download and sorting of available documents and conducted an initial scoping conference call.

Our team of environmental experts segregated sites with open issues and analyzed relevant (4 years or earlier)

documents. Additionally, we conducted web-based research to understand Army transfer, and Development Authority Closure criteria respectively, with a final goal of understanding remaining environmental liability exposures.

Our findings were summarized to the client on a 10-day turnaround which included: an overview narrative Underwriting Review report and a table detailing risks associated with the 92 site-specific Areas of Concern. VERTEX completed follow-up with the carrier allowing them to hone underwriting approach coverage give backs prior to the quote submission.



## VERTEX Expertise: **Certifications**

VERTEX emphasizes regular in-house technical training and certifications for our team of forensic experts. VERTEX has developed in-house seminars and also provides CEU's and CLE's to industry groups.

Civil Engineers (PE's)

Structural engineers (PE's)

Mechanical engineers (PE's)

Architects

Certified fire investigator

Professional geologists (PG's)

Certified roof inspectors

Master Electricians

Certified masonry inspectors

NFIP flood certification

Licensed mold inspectors

Licensed asbestos inspectors

Certified industrial hygienists

General contractors

**Energy** | VERTEX offers insurers the specialized expertise required to manage losses in traditional, carbon-based energy infrastructure and emerging, renewable energy markets. Our petroleum, chemical and mechanical engineers investigate losses related to the operation of refineries, bulk terminals, compressor stations, drilling rigs, coal mines, gas fracking sites and pipelines. VERTEX also performs risk analysis, recovery and claim investigations involving solar arrays, landfill gas, wind turbines and nuclear power.

**Professional Liability** | VERTEX offers the real-world experience to review the work of peers for reasonable standards of care. Our team includes licensed general contractors, engineers, geologists, architects, mold and asbestos experts, scientists and other environmental specialists. Among our services is the evaluation of projects for errors and omissions, and when appropriate, assisting with the defense of claims targeting policyholders. VERTEX has licensed professional engineers (PE's) in the lower 48 states, DC, Canada, and Mexico.

**Product Liability** | VERTEX construction expertise extends to the support of liability claims related to products used in the building process. We investigate the full range of claims including manufactured structural components, windows, defective drywall, asbestos, spray foam installation, shingles and flooring products.

*VERTEX insurance services are exceptional in scope and depth of expertise—from prevention to response, to forensic investigation.*



We are pleased to receive  
new assignments at:  
[assignments@vertexeng.com](mailto:assignments@vertexeng.com)

**Our international network of resources** enables us to provide our multi-national clients with the most qualified local professionals who understand the culture, language, and regulatory system. Across the globe, VERTEX maintains the high quality service that our customers expect.

## NETWORK & OFFICE LOCATIONS WORLDWIDE

\* Office Locations

### NORTH AMERICA

#### UNITED STATES

Arizona\*  
California\*  
Colorado\*  
Connecticut\*  
Florida\*  
Georgia\*  
Hawaii\*  
Illinois\*  
Kansas\*  
Massachusetts\*  
Michigan\*  
Missouri\*  
New Jersey\*  
New York\*  
North Carolina\*  
Pennsylvania\*  
Texas\*  
Washington\*  
Washington, D.C.\*

#### CANADA

British Columbia  
Alberta  
Saskatchewan  
Manitoba  
Ontario\*  
Quebec  
New Brunswick  
Nova Scotia  
PEI

#### MEXICO

Juárez\*  
Mexico City\*  
Monterrey\*

#### CARIBBEAN

All Islands

### EUROPE

Austria  
Belgium  
Bulgaria  
Czech and Slovak Republics  
Denmark  
Estonia  
Finland  
France  
Germany  
Greece  
Hungary  
Ireland  
Italy  
Latvia  
Lithuania  
Netherlands  
Norway  
Poland  
Portugal  
Romania  
Russia  
Spain  
Switzerland  
Turkey  
UK

### CENTRAL/SOUTH AMERICA

Argentina  
Brazil  
Chile  
Costa Rica  
Equador  
Guatemala  
Panama  
Peru

### MIDDLE EAST

Bahrain  
Israel  
Kuwait  
Oman  
Qatar  
Saudi Arabia  
United Arab Emirates

### ASIA PACIFIC

Australia  
China  
India  
Japan  
New Zealand  
Philippines  
Singapore  
Taiwan  
Thailand  
South Korea  
Vietnam  
Laos

### AFRICA

Egypt  
South Africa



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