



# INDUSTRIAL HYGIENE CONSULTING SERVICES



**LANDMARK ENVIRONMENTAL, INC.**  
INNOVATION. SOLUTIONS. EXPERTISE.

## Industrial Hygiene Services — Setting a Standard for Quality and Results

A thoughtful and proactive Industrial Hygiene (IH) program and the use of integrated assessment techniques mean safer facilities, healthier employees, and a reduction in workers' compensation claims. Our programs are developed with the primary goal of complete elimination of IH-related losses that negatively affect productivity and operations.

*Landmark partners  
with our clients  
to design effective  
solutions that are  
both realistic  
and practical.*

Our key IH projects and clients have included hospitals and research facilities, the transportation district of a major municipality, pharmaceutical manufacturing facilities, government installations, industrial demolition projects, and pipelines and refineries.

Landmark conducts IH projects with an emphasis on identification and resolution of priorities only after the site-specific conditions are clearly and completely understood. We believe that professional integrity and objective assessment of conditions with conclusions drawn from empirical data, set the standard for quality and results. The merits and limitations of each element of a sampling and analysis approach are carefully considered before determining where, what types, and how many samples to collect.

## Promoting Corporate Responsibility

To promote corporate responsibility and create an effective balance of risk and cost, Landmark evaluates the merits and limitations of each element of loss-control programs, including approaches to sampling and analysis, before making recommendations on the assessment approach.



## Indoor Air Quality

Our Indoor Air Quality (IAQ) services include comprehensive monitoring and sampling per industry standards for contaminants, such as biological materials (molds and bacteria), metals, nuisance dusts, indoor air pollutants, asbestos, and volatile organics. We develop site-specific programs based on our experience with building systems and construction practices, communication with owners and occupants, and identification of the root causes of a problem for industrial and commercial facilities.

## Process Evaluations and Audits

In order to ensure that projects are in compliance with the latest federal and state environmental waste regulations, Landmark conducts workplace audits and detailed exposure assessments with an emphasis on early identification of site-specific conditions through sampling and analysis. Working with toxicologists and physicians, Landmark has integrated risk-assessment programs with worker safety. Resolution of issues often includes worker training and implementation of hazard communication programs in the workplace.

## Regulatory Compliance

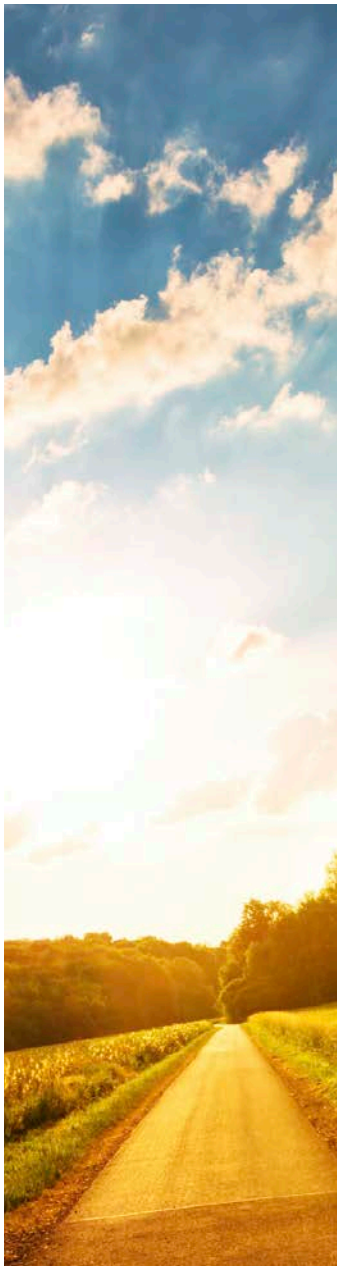
Landmark's environmental specialists conduct detailed facility audits that identify existing environmental or occupational hazards. These audits typically encompass on-site walk-through surveys, inventory of hazardous substances stored or used on-site and testing of environmental conditions.

## Healthcare

- Performed IAQ assessments in surgical and clean-room environments at clinics and major medical facilities, resulting in measurably cleaner indoor air environments for patients and staff.
- Assessed and monitored negative pressure and clean-room systems in a large pharmaceutical manufacturing facility, resulting in a reduction of workers' compensation claims.
- Identified potential problems with ethylene oxide delivery systems for autoclaves at a major medical facility, resulting in prevention of a possible life-threatening condition for workers.
- Successfully supported the defense of fraudulent lawsuits relating to hazard communication in a major medical facility by developing and documenting chemical hazard awareness and training programs.







## Federal, State & Local Government

- Performed soil-vapor and IAQ monitoring in over 100 residences impacted by historical solvent releases from a testing and materials laboratory, resulting in positive relations with homeowners and regulatory closure of corrective actions.
- Assessed and developed mold mitigation programs for a 600-unit U.S. Department of Housing and Urban Development (HUD) housing development, enabling hundreds of residents to remain in or to return to their homes.

## Industry and Manufacturing

- Developed and implemented hydrogen sulfide collection and monitoring systems at a coal-bed methane production field, resulting in protection of workers and down-wind communities and successful permitting of a \$100 million land-lease for domestic energy production.
- Conducted emergency response and chemical storage/hazard assessment at a significant uncontrolled hazardous waste site associated with electroplating operations, resulting in community protection and pollution prevention during a major hydrofluoric acid spill.
- Monitored benzene hazards at two major manufacturing facilities in the specialty chemical and steel industries, resulting in development and implementation of innovative technologies for improved gas collection systems and use of alternative, environmentally friendly heat-transfer chemicals used in distillation processes.
- Assessed chemical hygiene and worker protection programs in support of a \$280 million transaction of a 1,500-acre aluminum smelting and manufacturing facility. Environmental health and safety cost analyses performed by Landmark defined \$20 million in potential risks and liabilities for the prospective purchaser of the facility.
- At two major paper manufacturing facilities, Landmark was able to assess and quantify safety and environmental costs associated with demolition and decontamination in a period of weeks, not months.



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