



What Is Industrial Hygiene?

Industrial hygiene is the anticipation, recognition, evaluation, and control of workplace environmental factors that may affect the health, comfort, or productivity of the worker. Industrial hygiene is considered a science, but it is also an art that involves judgment, creativity, and human interaction.

Although some occupations may appear more dangerous than others, potential short-term and long-term health hazards affect everyone from bankers to construction workers. Industrial hygienists play an important role in ensuring that the workplace is as free from hazards as possible and workers and the community at large are protected from potential health threats. Industrial hygiene is applied science, where put what you have learned in the classroom to use protecting people, and it involves facing new challenges and solving new problems every day. Some areas that industrial hygienists may get involved in include:

- **Asbestos**—testing for and possibly removing asbestos. This mineral fiber, which has fire-resistant capabilities and was used for insulation in buildings, is now known to cause cancer and other illnesses.
- **Biological Monitoring**—determining if toxic materials have reached a person by searching for them in the person's body and by evaluating the body's byproducts, such as blood.
- **Biosafety**—ensuring that materials such as bacteria, viruses, and used syringes and needles are handled safely so as not to infect workers.
- **Confined Spaces**—establishing procedures to safely enter closed spaces not designed for human occupancy, such as storage tanks.
- **Ergonomics**—helping to limit disabilities due to repetitive and/or prolonged movement, such as typing at a keyboard, working on an assembly line, or sitting at a desk all day.
- **Lead**—finding solutions to problems caused by unsafe levels of lead found in old paint, contaminated water, and other materials.
- **Emergency Response**—helping ensure that first responders are properly protected from the hazards of their jobs, from fire and electrical shock to chemical and biological exposures, so that they can concentrate on saving lives.
- **Exposure Assessment**—measuring human exposures to toxic materials.
- **Hazard Evaluation**—determining the real potential for ill health effects by performing such functions as testing for potentially hazardous gases and vapors, measuring noise levels, and evaluating results from such measurements and tests.
- **Illegal Drug Lab Cleanup**—helping keep police and firefighters safe from dangerous chemicals and other hazards involved in cleanup of illegal drug “labs,” while also determining when a home or other building formerly used as a drug lab is safe to be used again.



- **Indoor Environmental Quality**—ensuring inside air is safe and free from irritants and toxins, including problems such as mold and sick building syndrome.
- **Radiation**—testing and controlling radiation emitted from power lines, electromagnetic fields, or radioactive materials.
- **Toxicology**—studying the nature and action of poisons and exactly how they cause ill health effects.

One Profession With Many Options

Job diversity is a major benefit to consider when choosing a career in the environmental health and safety arena. Industrial hygienists are not limited to one particular type of industry; they are employed in a variety of organizations such as:

- Public utilities
- Government
- Labor unions
- Research laboratories
- Hospitals
- Hazardous waste companies
- Colleges and universities
- Insurance companies
- Consulting firms
- Chemical companies
- Manufacturing companies

Many industrial hygienists work for private corporations or federal and state government agencies as salaried employees. However, the fastest-growing segment of the industrial hygiene profession is self-employment or consulting. Many industrial hygiene careers can lead to upper management positions, as the industrial hygienist's job is a multifaceted one that touches every aspect of an organization and benefits a business's bottom line through increased productivity, improved morale, and lower workers' compensation and liability costs. The industrial hygienist acts as an adviser, making recommendations and setting standards to keep the workplace safe. This calls for working with employees at all job levels and requires a genuine commitment to caring about people and the environment.

Visit www.aiha.org or call 703-849-8888 for more information.