

13 INDUSTRIAL HYGIENE PROGRAM

ANSWERS—QUIZ 1

1. b
2. a
3. b, c
4. c
5. b
6. The four classifications of environmental factors or stresses that can cause sickness in workers are chemical, physical, biological, and ergonomic.
7. Examples of physical hazards that might concern an industrial hygienist are excessive levels of ionizing and nonionizing radiations, noise, vibration, and extremes of temperature.
8. Frequency, amplitude, and acceleration are terms typically used in an evaluation of vibration exposure.
9. Occupational exposure and thermal comfort are the two types of exposure limits that are often used as guidelines for temperature-stress evaluations.
10. Risk factors that are frequently identified during ergonomic evaluations include repetitive motions; awkward work positions; excessive amounts of force used to perform jobs; repeated or improper lifting of heavy objects; cold temperatures; and vibration.
11. The American Industrial Hygiene Association defines industrial hygiene as the science and art devoted to the anticipation, recognition, evaluation, and control of environmental factors or stresses arising in or from the workplace which may cause sickness, impaired health and well-being, or significant discomfort and inefficiency among workers or among citizens of the community.
 - substituting safer materials for harmful or toxic ones
 - changing work processes to eliminate or minimize work exposure
 - installing exhaust ventilation systems
 - practicing good housekeeping (including appropriate waste disposal methods)
 - providing proper personal protective equipment

ANSWERS—QUIZ 2

1. a
2. b
3. a
4. d
5. a
6. Toxicity is the capacity of a chemical to harm or injure a living organism by other than mechanical means.
7. Examples of corrective measures used by industrial hygienists to control health hazards include the following:

ANSWERS—CASE STUDY

1. Industrial hygienists can be employed in a consulting capacity.
2. The consultant industrial hygienist is ordinarily called in only when problems arise, and the consultant may not be as familiar with the facility and company personnel as a full-time person would. The extent of this problem can be lessened, however, by scheduling regular industrial hygiene consulting visits to discuss policy issues and inspect the facility during normal conditions.
3. The minimum requirement should be certification

(i.e., designation as CIH) and familiarity with the industry. As with other professional services, personal recommendations from satisfied users of consulting services are often the best source for information. In addition to the qualifications of the person being considered as a consultant, resources of his or her firm can also be important, such as the availability of an in-house lab.