

CHAPTER OVERVIEW

5: Health Hazards

- 5.1: Introduction to Health Hazards
- 5.2: Occupational Exposures
- 5.3: Lead and other Elements
- 5.4: Environment
- 5.5: Personal Protective Equipment
- 5.A: Chapter 4 Review Questions

“If you think in terms of a year, plant a seed; if in terms of ten years, plant trees; if in terms of 100 years, teach the people.” - Confucius

Overview

Our health is important, period. Humans no matter where they live have much better health outcomes from what was typical 500, 200, or even 100 years ago. We study and research natural elements in our physical world, our environment, and the health impacts resulting from immediate and long term exposures to those elements. This continuous study and education on health hazards is actually part of our educational infrastructure. This inclusion in the educational infrastructure is seen and felt. For example, “Over the last 200 years, U.S. life expectancy has more than doubled to almost 80 years (78.8 in 2015), with vast improvements in health and quality of life. However, while most people imagine medical advancements to be the reason for this increase, the largest gain in life expectancy occurred between 1880 and 1920 due to public health improvements such as control of infectious diseases, more abundant and safer foods, cleaner water, and other nonmedical social improvements.”([Life Expectancy](#))

In this chapter you will connect some of what you learned about natural hazards in our physical world in both K-12 education, and the general education requirements of your secondary institutions to occupational health. Health hazards include those associated with biological and physical hazards. Take a moment to reflect on courses you may have taken in high school or college such as health science or life science, biology, physics, and chemistry as you review environmental health standards broadly, and specifically those encountered in general industry and construction work.

Chapter Objective

1. Determine the medical and first aid service required for construction sites in 1926 Subpart D.
2. Identify workplace sanitation requirements under 1926 Subpart D
3. Review requirements for occupational noise exposure, heat, non ionizing radiation, ventilation, and minimum illumination.
4. Review and understand the dangers of construction related health hazards such as silica, asbestos, cadmium, and lead.
5. Discuss typical PPE requirements for construction health hazards.
6. Decide if a construction site is covered by the Hazardous Waste Operations and Emergency Response Standard and what training is required to work on such sites.

Learning Outcome

1. Recognize and describe physical health hazards and methods for controlling those hazards.
2. Recognize and understand the requirements for preventing unsanitary, unhealthful, and unsafe and hazardous conditions on construction sites.
3. Identify provisions for the availability of medical facilities and HAZMAT Operations.

Standards: 1926 Subpart D, 1926.62 Lead, 1926.65(1910.120) HAZWOP, 1926.1101 Asbestos, 1926.1127 Cadmium, 1926.1153 Respirable Crystalline Silica, 1926 Subpart E and 1910 Subpart I Personal Protective Equipment

Key Terms

HAZMAT, Decibel, First Aid, Foot-Candle, Laser, Potable, Respirable, Vector

Mini-Lecture: Physical Health Hazards and PPE

Topic Required Time: 2 hrs; Independent Study and reflection 1 3/4 hour.

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