

Industrial Safety and Health Management

Seventh Edition

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Preface

The seventh edition of *Industrial Safety and Health Management* remains true to the purpose of engaging the reader in the common sense approaches to safety and health from a concept, process, and compliance perspective. The book retains its easy-to-read format while increasing the retention of the reader through additional case studies and statistics, relevant topics, and additional explanation of difficult-to-understand concepts.

Much of the safety change we see comes on the heels of major disasters or social trends and changes. The past decade has seen many. The explosion of a major sugar processing plant has driven a renewed focus on combustible dust, an outbreak of Ebola brought focus on contagious diseases, the sinking of a major oil derrick initiated a discussion on regulatory oversight and process health, and numerous acts of violence bring our attention to security in the workplace. Social trends such as the rise of “gig” or “on-demand” employment have brought about questions of the definition of an “employee” and coverage for safety nets such as workers’ compensation. Regulatory changes have even precipitated the complete removal of workers’ compensation in some states. In other areas, the effectiveness of workers’ compensation led to a robust dialog on whether or not a permanently injured employee truly receives compensation commensurate to his or her injury. Meanwhile rises in the number of states legalizing marijuana have caused companies to question current drug screening programs and medical treatment programs.

Regulation has changed as well. The adoption of the Globally Harmonized System for Hazard Communication or GHS has completely changed the way we think about hazard communication. The new system crosses language barriers and helps workers who may not be able to read or may not be fluent in a given language with a series of pictograms depicting the dangers of certain chemicals. Hazards are now categorized in a standard way which drives increased consistency of approach. For the first time in nearly 20 years, fines associated with citations have gone up considerably. Meanwhile, record fines have been levied against corporations associated with major disasters. The classification of companies has also been changed to the modernized North America Industry Classification System (NAICS).

As the authors have used the text in their classrooms, a critical focus has been on addressing the most common areas that students will be expected to apply in an industrial setting. Additional explanation around the concepts of PELs has been given to help students to understand the differences among PEL’s, Ceilings, and other measures. Calculations around the Noise Reduction Rating (NRR) and how it is practically used will help students address the prevalent danger of industrial noise in their work environments. In addition, explained in more detail is sometimes the confusing concept of applying workers’ compensation and practical aspects of protecting employees.

WHAT'S NEW IN THIS EDITION?

For easy reference, the authors have summarized the new features of this edition as follows:

- Overhaul of hazard communication standard and incorporation of the Globally Harmonized System
- Increased discussion on workers' compensation rates and calculations
- Trends in workers' compensation privatization and states "opting-out"
- Layers of coverage for permanent injuries
- Coverage of the trends in the gig economy and the changing nature of employees
- OSHA usage of reporting in "Big Data"
- Changes in SIC to North American Industry Classification System (NAICS)
- Discussion of bloodborne pathogens and protecting workers from diseases such as HIV and Ebola
- Increased coverage of workplace security
- Discussion of preparation and response techniques for active shooter scenarios
- Impact of medical marijuana
- Changes in OSHA citation penalty levels
- Increased coverage of Target Industry programs
- Coverage of fatigue and worker safety
- Practical discussion of PELs, STELs, Ceiling Limits and how they interact
- Changes to flammable liquid classification
- Coverage of calculations and usage of Noise Reduction Rating (NRR)
- Coverage of long-term health impact to World Trade Center first responders
- OSHA's work against the dangers of combustible dust
- Additional practical and pragmatic assessment of penalty levels
- Additional review of OSHA programs such as SHARP and VPP as OSHA is increasing its collaborative approach in recent years
- Additional case studies to bring home to readers about the concepts of safety and health

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