

Book review

ICE Manual of Health and Safety in Construction

Ciaran McAleenan and David Oloke (eds), Thomas Telford, London, 2010, ISBN 978-0-7277-4121-9, £80.00, 280 pp.

The *ICE Manual of Health and Safety in Construction* is part of the ICE manuals series. It is an invaluable reference textbook for clients, architects, civil engineers, project managers, designers, quantity surveyors, Construction (Design and Management) (CDM) coordinators, contractors and subcontractors. The book is well written, highly readable and full of practical guidance and advice. Practitioners in the construction industry, academics, researchers and students at both undergraduate and postgraduate level will find this textbook useful. The book is written by a team of 16 experienced construction industry experts with a keen interest in occupational health and safety in construction.

The book contains 21 chapters presented in five sections. The introductory section contains two chapters. Chapter 1 covers the legislative framework for occupational health and safety in construction in the UK including the Health and Safety at Work etc. Act 1974 and the more recent developments such as the Corporate Manslaughter and Corporate Homicide Act 2007. Differences in the legal framework for occupational health and safety in jurisdictions including the UK, Europe, USA, and countries in the Middle East are given. Chapter 2 covers occupational health, which is an area that is so important and yet does not normally receive the same level of coverage and attention as occupational safety in many textbooks.

Section 2 covers workforce issues and contains two chapters. Chapter 3 covers responsibilities of the main duty holders under the CDM Regulations 2007. Chapter 4 outlines some of the major tripartite initiatives that have recently been developed and adopted by governments, employer organisations and employee groups (unions) to improve management of workers' conditions.

Detailed guidance on management of occupational health and safety in construction is provided in Section 3. Chapter 5 provides an evaluation of the risk management process and the opportunities that are available for effective management of risks to health and safety during the project life cycle. Reference is made to new tools such as ISO 31000: 2009 (*Risk Management – Principles and Guidelines*) that have been developed to aid this process. The cornerstone of effective management of health and safety is proactive and continuous risk management. This is only possible if effective operational control processes have been established with workforce involvement. The operational analysis and control model is discussed in chapter 6. Chapter 7 covers occupational health and

safety management systems including the ILO-OSH 2001 (*Guidelines on Occupational Safety and Health Management Systems*), HSG65 (*Successful Health and Safety Management*) and finally BS OHSAS 18001 (*Occupational Health and Safety Assessment System*). The assessment of occupational health issues such as musculoskeletal disorders, upper limb disorders, spine/back disorders, occupational stress, asthma, dermatitis, etc. is covered in chapter 8. Chapter 9 deals with hazard assessment models and methods. The section ends with chapter 10, which deals with procurement principles to ensure that bidders and all project participants who are contracted by the client can demonstrate that they can meet the required standards for occupational health and safety.

I must commend the authors and the editors for devoting a whole section (Section 4) to occupational health hazards. Chemical hazards including the relevant statutory issues are discussed in chapter 11. Chapter 12 covers biological hazards and the section concludes with physical hazards such as noise, extremes of temperature, radiation and electromagnetic fields in chapter 13.

The final section (Section 5) contains eight chapters with each chapter providing guidance on hazard identification and control in specific areas of work activity. Working at height continues to be a major cause of fatalities and major injuries in construction. It is on this basis that the Work at Height Regulations 2005 became law in the UK. Working at height and roofwork are covered in chapter 14, and chapter 15 deals with the hazards and control procedures associated with work in excavations and piling works. Confined spaces are considered in chapter 16 and falsework and demolition work are covered in chapters 17 and 18, respectively. Risk and control procedures associated with transportation and vehicle movements on construction sites are covered in chapter 19 and fire and explosion hazards are considered in chapter 20. The book concludes with chapter 21 which deals with safe systems of work when working on, in, over or near water.

Every person who is killed, injured or suffers ill health in construction is one person too many. As an industry, we can do better. This book has a contribution to make towards improving occupational health and safety performance in the industry. I enjoyed reading it. It is a solid textbook, succinct and informative. It is essential reading for all who are associated with the construction industry. I thoroughly commend it.

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