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Nota di contenuto	Intro -- An Effective Strategy for Safe Design in Engineering and Construction -- Contents -- Figures -- Tables -- Foreword -- Introduction -- Aims of the Book -- Who the Book is For -- How the Book is Structured -- Promoting Safe Design -- Example Case Studies -- Nuclear Power Plant -- Office Block -- Warship -- Home Printer -- Motor Car -- The Context of Design -- Design and the Product Life Cycle -- Influences on Design -- Preventing Error -- Safety as a Design Component -- Introduction-Summary -- Glossary of Terms -- 1 Elements of the Design Process -- Initiating Need -- Business Case -- Requirements Capture -- The Design Process -- Design Feasibility -- Design Specification -- Full or Technical Design -- Production Phase -- Validating the Design -- Lessons Learned -- The Design Process-Summary -- 2 The Regulatory Environment -- The Importance of Regulation in Design -- Health and Safety at Work etc. Act 1974 -- Environmental Protection Act 1990 -- Construction (Design and Management) Regulations 2015 (CDM) -- Provision and Use of Work Equipment Regulations 1998 -- CE Marking -- Building Information Modelling -- Standards -- The "Four Cs" -- How Construction

Regulations Align with the Design Process -- Benefits of Implementing CDM -- Pre-construction Including Design -- Construction Phase -- Handover and Use -- The Regulatory Environment-Summary -- 3 Design Process Considerations -- Management Structure and Delegations -- Client Relationship -- Documentation and Management Systems -- Communication and Dissemination -- Project Management Methodologies -- RIBA Plan of Work -- PRINCE2 -- Environmental Impact and the Circular Economy -- The Circular Economy -- Environmental Impact-A Footnote -- Further Considerations -- Provision of Materials and Manufacturing Techniques -- Ergonomics and the Work Environment -- Space -- Air Quality.
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Acceptance/Handover -- Health and Safety File -- In Service -- Risk Management in Service -- Training Provision -- Operation and Maintenance -- Repurposing -- Disposal -- Disposal Risk Assessment -- Bibliography -- Index.

Sommario/riassunto

"Design is the cornerstone of creating and producing any structure, product or item either for bespoke use or mass reproduction. Anything that is created, constructed or manufactured relies on design whether for aesthetic, functional or critical purposes. Of paramount importance is the designer's understanding of the intended use and the application of the product and their subsequent ability to translate this into a finished design. Of equal importance to the designer is an understanding of the operating environment in which the product is to be used and how this environment is controlled by such considerations as regulations, standards or social norms. These considerations may have a direct influence (such as the regulations surrounding health and safety) or indirect influence (such as ethical or moral concerns) on the design process. Additionally, the actual individuals who will use the

product should be considered, as well as any others who may come into contact with it. What is important in any design process is that the criteria of the design requirement are developed within this sphere of considerations and; that it is capable of being subsequently produced accurately to that requirement. This is known as the input-process-output cycle"--