

1. Record Nr.	UNISA990000248520203316
Autore	Warren, Stuart
Titolo	Designing organic syntheses : a programmed introduction to the synthon approach / Stuart Warren
Pubbl/distr/stampa	Chichester [etc.] : John Wiley & Sons, copyr. 1978 (stampa 1989)
ISBN	0-471-99612-2
Descrizione fisica	285 p. : ill. ; 21 cm
Disciplina	5472
Collocazione	547.2 WAR
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
2. Record Nr.	UNINA9910830152603321
Autore	Fiorentini Luca
Titolo	Fire Risk Management : Principles and Strategies for Buildings and Industrial Assets
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2023 ©2023
ISBN	1-119-82746-9 1-119-82744-2 1-119-82745-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (479 pages)
Altri autori (Persone)	DattiloFabio
Disciplina	628.9/22
Soggetti	Fire protection engineering Fire risk assessment Fire prevention Risk management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Intro -- Fire Risk Management -- Contents -- Foreword -- Preface -- Acknowledgments -- List of Acronyms -- About the Companion Website -- 1 Introduction -- 2 Recent Fires and Failed Strategies -- 2.1 Torre dei Moro -- 2.1.1 How It Happened (Incident Dynamics) -- 2.2 Norman Atlantic -- 2.2.1 How It Happened (Incident Dynamics) -- 2.3 Storage Building on Fire -- 2.3.1 How It Happened (Incident Dynamics) -- 2.4 ThyssenKrupp Fire -- 2.4.1 How It Happened (Incident Dynamics) -- 2.5 Refinery's Pipeway Fire -- 2.5.1 How It Happened (Incident Dynamics) -- 2.6 Refinery Process Unit Fire -- 2.6.1 How It Happened (Incident Dynamics) -- 3 Fundamentals of Risk Management -- 3.1 Introduction to Risk and Risk Management -- 3.2 ISO 31000 Standard -- 3.2.1 The Principles of RM -- 3.3 ISO 31000 Risk Management Workflow -- 3.3.1 Leadership and Commitment -- 3.3.2 Understanding the Organisation and Its Contexts -- 3.3.3 Implementation of the RM Framework -- 3.3.4 The Risk Management Process -- 3.4 The Risk Assessment Phase -- 3.5 Risk Identification -- 3.6 Risk Analysis -- 3.6.1 Analysis of Controls and Barriers -- 3.6.2 Consequence Analysis -- 3.6.3 Frequency Analysis and Probability Estimation -- 3.7 Risk Evaluation -- 3.7.1 Acceptability and Tolerability Criteria of the Risk -- 3.8 The ALARP Study -- 3.9 Risk Management over Time -- 3.10 Risk Treatment -- 3.11 Monitoring and Review -- 3.12 Audit Activities -- 3.13 The System Performance Review -- 3.14 Proactive and Reactive Culture of Organisations Dealing with Risk Management -- 3.15 Systemic Approach to Fire Risk Management -- 4 Fire as an Accident -- 4.1 Industrial Accidents -- 4.2 Fires -- 4.2.1 Flash Fire -- 4.2.2 Pool Fire -- 4.2.3 Fireball -- 4.2.4 Jet Fire -- 4.3 Boiling Liquid Expanding Vapour Explosion (BLEVE) -- 4.4 Explosion -- 4.5 Deflagrations and Detonations -- 4.5.1 Vapour Cloud Explosion. 4.5.2 Threshold Values -- 4.5.3 Physical Effect Modelling -- 4.6 Fire in Compartments -- 5 Integrate Fire Safety into Asset Design -- 6 Fire Safety Principles -- 6.1 Fire Safety Concepts Tree -- 6.2 NFPA Standard 550 -- 6.3 NFPA Standard 551 -- 6.3.1 The Risk Matrix Method Applied to Fire Risk -- 7 Fire-Safety Design Resources -- 7.1 International Organisation for Standardisation (ISO) -- 7.1.1 ISO 16732 -- 7.1.2 ISO 16733 -- 7.1.3 ISO 23932 -- 7.1.3.1 Scope and Principles of the Standard -- 7.1.4 ISO 17776 -- 7.1.5 ISO 13702 -- 7.2 British Standards (BS) - UK -- 7.2.1 PAS 911 -- 7.2.1.1 Risk and Hazard Assessment -- 7.2.2 BS 9999 -- 7.3 Society of Fire Protection Engineers - USA (SFPE-USA) -- 7.3.1 Engineering Guide to Fire Risk Assessment -- 7.3.2 Engineering Guide to Performance-Based Fire Protection -- 7.4 Italian Fire Code -- 7.4.1 IFC Fire-Safety Design Method -- 8 Performance-Based Fire Engineering -- 9 Fire Risk Assessment Methods -- 9.1 Risk Assessment Method Selection -- 9.2 Risk Identification -- 9.2.1 Brainstorming -- 9.2.2 Checklist -- 9.2.3 What-If -- 9.2.4 HAZOP -- 9.2.5 HAZID -- 9.2.6 FMEA/FMEDA/FMECA -- 9.3 Risk Analysis -- 9.3.1 Fault Tree Analysis (FTA) -- 9.3.2 Event Tree Analysis (ETA) -- 9.3.3 Bow-Tie and LOPA -- 9.3.3.1 Description of the Method -- 9.3.3.2 Building a Bow-Tie -- 9.3.3.3 Barriers -- 9.3.3.4 LOPA Analysis in Bow-Tie -- 9.3.4 FERA and Explosion Risk Assessment and Quantitative Risk Assessment -- 9.3.5 Quantitative Risk Assessment (QRA) -- 9.3.6 Fire and Explosion Risk Assessment (FERA) -- 9.4 Risk Evaluation -- 9.4.1 FN Curves -- 9.4.2 Risk Indices -- 9.4.3 Risk Matrices -- 9.4.4 Index Methods -- 9.4.4.1 An Example from a "Seveso" Plant -- 9.4.5 SWeHI Method -- 9.4.6 Application -- 9.5 Simplified Fire Risk Assessment Using a Weighted Checklist -- 9.5.1 Risk Levels -- 10 Risk Profiles -- 10.1 People -- 10.2 Property. 10.3 Business Continuity -- 10.4 Environment -- 11 Fire Strategies -- 11.1 Risk Mitigation -- 11.2 Fire Reaction -- 11.3 Fire Resistance --

11.4 Fire Compartments -- 11.5 Evacuation and Escape Routes -- 11.6 Emergency Management -- 11.7 Active Fire Protection Measures -- 11.8 Fire Detection -- 11.9 Smoke Control -- 11.10 Firefighting and Rescue Operations -- 11.11 Technological Systems -- 12 Fire-Safety Management and Performance -- 12.1 Preliminary Remarks -- 12.2 Safety Management in the Design Phase -- 12.3 Safety Management in the Implementation and Commissioning Phase -- 12.4 Safety Management in the Operation Phase -- 13 Learning from Real Fires (Forensic Highlights) -- 13.1 Torre dei Moro -- 13.1.1 Why It Happened -- 13.1.2 Findings -- 13.1.3 Lessons Learned and Recommendations -- 13.2 Norman Atlantic -- 13.2.1 Why It Happened -- 13.2.2 Findings -- 13.2.3 Lessons Learned and Recommendations -- 13.3 Storage Building on Fire -- 13.3.1 Why It Happened -- 13.3.2 Findings -- 13.3.3 Lessons Learned and Recommendations -- 13.4 ThyssenKrupp Fire -- 13.4.1 Why It Happened -- 13.4.2 Findings -- 13.4.3 Lessons Learned and Recommendations -- 13.5 Refinery's Pipeway Fire -- 13.5.1 Why It Happened -- 13.5.2 Findings -- 13.5.3 Lessons Learned and Recommendations -- 13.6 Refinery Process Unit Fire -- 13.6.1 Why It Happened -- 13.6.2 Findings -- 13.6.3 Lessons Learned and Recommendations -- 13.7 Fire in Historical Buildings -- 13.7.1 Introduction -- 13.7.1.1 Description of the Building and Works -- 13.7.2 The Fire -- 13.7.2.1 The Fire Damage -- 13.7.3 Fire-Safety Lessons Learned -- 13.8 Fire Safety Concepts Tree Applied to Real Events -- 14 Case Studies (Risk Assessment Examples) -- 14.1 Introduction -- 14.2 Facility Description -- 14.3 Assessment -- 14.3.1 Selected Approach and Workflow -- 14.3.2 Methods -- 14.3.3 Fire Risk Assessment. 14.3.4 Specific Insights -- 14.4 Results -- 15 Conclusions -- Bibliography -- Index -- EULA.

Sommario/riassunto

"Heraclitus, an ancient Greek philosopher, asserted that everything in the world flows ("Panta Rei") and that fire represents universal becoming better than anything else because fire itself is the "archel", the principle from which all things are generated. For the philosopher, this becoming is not random and chaotic but is regular and orderly, provided one knows the rules. In this volume, we have tried to explain the complex rules governing fire in a simple way, using methods, from the simplest to the most refined, such as the engineering approach. Studying the development of smoke and heat in fires, knowing the effects they have on people and buildings, helps a great deal in adopting the right strategies for preventing and containing fires. But the approach taken in the book is deliberately holistic, in the sense that each individual strategy can have a great influence on the others, and therefore fire prevention must be seen as a whole. And as a whole, the success (or failure) of the strategies implemented also depends on the behaviour of the people involved, behaviour that must be framed within a safety management perspective. A volume that purports to present the historical discipline of fire prevention but with a new methodological approach based on the performance to be achieved rather than on strongly prescriptive but often uncritical methods and requirements"--
