1. Record Nr. UNINA9911004768303321 Autore Pillay Anand **Titolo** Technology and safety of marine systems / / Anand Pillay, Jin Wang Pubbl/distr/stampa Amsterdam;; Boston,: Elsevier Science, 2003 **ISBN** 1-281-05401-1 9786611054014 0-08-054224-7 Descrizione fisica 1 online resource (335 p.) Collana Elsevier ocean engineering book series : : v. 7 Altri autori (Persone) WangJ Disciplina 363.12/37 Soggetti Ships - Safety measures Ships - Safety regulations Ships - Inspection Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Cover: Technology and Safety of Marine Systems: Copyright Page: Table of Contents; Series Preface; Preface; Chapter 1. Introduction; Summary; 1.1 Introduction: 1.2 Safety and Reliability Development in the Maritime Industry; 1.3 Present Status; 1.4 Databases; 1.5 Description of the Book; 1.6 References (Chapter 1); Chapter 2. Ship Safety and Accident Statistics Summary: 2.1 Introduction: 2.2 The Code of Practice for the Safety of Small Fishing Vessels; 2.3 The Fishing Vessels (Safety Provisions) Safety Rules 1975; 2.4 Accident Data for Fishing Vessels; 2.5 Data Analysis 2.6. Containership Accident Statistics 2.7. Conclusion; 2.8. References (Chapter 2); Chapter 3. Safety Analysis Techniques Summary; 3.1 Introduction; 3.2 Qualitative Safety Analysis; 3.3 Quantitative Safety Analysis; 3.4 Cause and Effect Relationship; 3.5 Preliminary Hazard Analysis (PHA); 3.6 What-If Analysis; 3.7 HAZard and OPerability (HAZOP) Studies: 3.8 Fault Tree Analysis (FTA); 3.9 Event Tree Analysis: 3.10 Markov Chains; 3.11 Failure Mode, Effects and Critical Analysis (FMECA); 3.12 Other Analysis Methods; 3.13 Conclusion; 3.14 References (Chapter 3)

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## Sommario/riassunto

Traditionally society has regulated hazardous industries by detailed references to engineering codes, standards and hardware requirements. These days a risk-based approach is adopted. Risk analysis involves identifying hazards, categorizing the risks, and providing the necessary decision support to determine the necessary arrangements and measures to reach a ""safe"" yet economical operating level. When adopting such an approach the abundance of techniques available to express risk levels can often prove confusing and inadequate. This highly practical guide to safety and risk analysi