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Nota di contenuto	Basic Guide to System Safety; Contents; Preface; Acknowledgments; Part 1 The System Safety Program; 1 System Safety: An Overview; Background; The Difference Between Industrial Safety and System Safety; System Safety and the Assessment of Risk; 2 System Safety Concepts; Fundamentals; The System Safety Process; System Safety Criteria; Hazard Severity; Hazard Probability; The Hazard Risk Matrix; System Safety Precedence; Cost and Risk Acceptance; Quantitative Risk Assessment; Principles of Risk Management; Management Commitment; 3 System Safety Program Requirements; The Safety Charter Selling Safety to Management The System Safety Effort; Closed-Loop Hazard Tracking System; Accident Risk Assessment; Mishap/Accident/Incident Reporting; Facility Inspection Reports; System Safety Analyses; Life Cycle Phases and the System Safety Process; Concept Phase; Design Phase; Production Phase; Operations Phase; Disposal Phase; 4 The Industrial Safety Connection; The Occupational Safety and Health Act; The Human Factors Element; Accident Prevention Through System Design; The Process of Task Analysis; The Job Safety Analysis and System Safety Guidelines for Preparing a Job Safety Analysis Signatures and

Approvals; Changes in Hazard/Scope; System Safety: An Integral Part of the Overall Organization; 5 Probability Theory and Statistical Analysis; Introduction; Probability; Statistics; Summary; Part 2 System Safety Analysis: Techniques and Methods; 6 Preliminary Hazard Analysis; Introduction; The PHA Development Process; The PHA Report; PHA Example; System Description; System Operation; Preliminary Assessment; Evaluation of System Risk; Summary; 7 Subsystem and System Hazard Analyses; Introduction; The Subsystem Hazard Analysis Report
SSHA Example System Description; Evaluation of Subsystem Hazard Risk; Summary; 8 Operating and Support Hazard Analysis; Introduction; Ergonomics; When to Perform the O&SHA; O&SHA Example; Scope and Purpose of the Example O&SHA; Risk Assessment; Risk Assessment 1: 1B; Risk Assessment 2: 1A; Risk Assessment 3: 2B; Summary; 9 Energy Trace and Barrier Analysis; Introduction; The Energy-Barrier Concept; Uses of the ETBA; Performing the ETBA; The ETBA Worksheet; Etba Example; System Description; The ETBA; Summary; 10 Failure Mode and Effect Analysis; Introduction; Types of FMEAs; Performing an FMEA
The FMEA Report FMEA Example; System Component/Subassembly Description; System Operation; Failure Mode(s) and Effect(s); Evaluation of Potential Subsystem or Component Failures; Summary; 11 Fault or Functional Hazard Analysis; Introduction; The FHA Process; FHA Example; System Description; The FHA Process; The FHA; Summary; 12 Fault Tree Analysis; Introduction; Qualitative and Quantitative Reasoning; Constructing a Fault Tree; Fault Tree Symbols; FTA Examples; Probability Values and the Fault Tree; Summary; 13 Management Oversight and Risk Tree; Introduction; The MORT Analytical Chart
MORT Use

Sommario/riassunto

"This book provides guidance on including prevention through design concepts within an occupational safety and health management system. Through the application of these concepts, decisions pertaining to occupational hazards and risks can be incorporated into the process of design and redesign of work premises, tools, equipment, machinery, substances, and work processes including their construction, manufacture, use, maintenance, and ultimate disposal or reuse. These techniques provide guidance for a life-cycle assessment and design model that balances environmental and occupational safety and health goals over the life span of a facility, process, or product.The new edition is expanded to include primer information on the use of safety assurance techniques in design and construction"--Provided by publisher.