

The Near Miss Management Of Operational Risk

An introductory text on the investigation of industrial accidents Forensic engineering should be seen as a rigorous approach to the discovery of root causes that lead to an accident or near-miss. The approach should be suitable to identify both the immediate causes as well as the underlying factors that affected, amplified, or modified the events in terms of consequences, evolution, dynamics, etc., as well as the contribution of an eventual "human error". This book is a concise and introductory volume to the forensic engineering discipline which helps the reader to recognize the link among those important, very specialized aspects of the same problem in the global strategy of learning from accidents (or near-misses). The reader will benefit from a single point of access to this very large, technical literature that can be only correctly understood with the right terms, definitions, and links in mind. Keywords: Presents simple (real) cases, as well as giving an overview of more complex ones, each of them investigated within the same framework; Gives the readers the bibliography to access more in-depth specific aspects; Offers an overview of the most commonly used methodologies and techniques to investigate accidents, including the evidence that should be collected to define the cause, dynamics and responsibilities of an industrial accident, as well as the most appropriate methods to collect and preserve the evidence through an appropriate chain of security. Principles of Forensic Engineering Applied to Industrial Accidents is essential reading for researchers and practitioners in forensic engineering, as well as graduate students in forensic engineering departments and other professionals. Close calls, narrow escapes, or near hits. History has shown repeatedly that these "near-miss" incidents often precede loss producing events, but are largely ignored or go unreported because nothing (no injury, damage or loss) happened. Thus, many opportunities to prevent the accidents that the organization has not yet had are lost. Recognizing and Information Control Problems in Manufacturing 2006 contains the Proceedings of the 12th IFAC Symposium on Information Control Problems in Manufacturing (INCOM'2006). This symposium took place in Saint Etienne, France, on May 17-19 2006. INCOM is a tri-annual event of symposia series organized by IFAC and it is promoted by the IFAC Technical Committee on Manufacturing Plant Control. The purpose of the symposium INCOM'2006 was to offer a forum to present the state-of-the-art in international research and development work, with special emphasis on the applications of optimisation methods, automation and IT technologies in the control of manufacturing plants and the entire supply chain within the enterprise. The symposium stressed the scientific challenges and issues, covering the whole product and processes life cycle, from the design through the manufacturing and maintenance, to the distribution and service. INCOM'2006 Technical Program also included a special event on Innovative Engineering Techniques in Healthcare Delivery. The application of engineering and IT methods in medicine is a rapidly growing field with many opportunities for innovation. The Proceedings are composed of 3 volumes: Volume 1 - Information Systems, Control & Interoperability Volume 2 - Industrial Engineering Volume 3 - Operational Research * 3-volume set, containing 362 carefully reviewed and selected papers * presenting the state-of-the-art in international research and development in Information Control problems in Manufacturing

Volume 3 of the Encyclopedia of Financial Models The need for serious coverage of financial modeling has never been greater, especially with the size, diversity, and efficiency of modern capital markets. With this in mind, the Encyclopedia of Financial Models has been created to help a broad spectrum of individuals—ranging from finance professionals to academics and students—understand financial modeling and make use of the various models currently available. Incorporating timely research and in-depth analysis, Volume 3 of the Encyclopedia of Financial Models covers both established and cutting-edge models and discusses their real-world applications. Edited by Frank Fabozzi, this volume includes contributions from global financial experts as well as academics with extensive consulting experience in this field. Organized alphabetically by category, this reliable resource consists of forty-four informative entries and provides readers with a balanced understanding of today's dynamic world of financial modeling. Volume 3 covers Mortgage-Backed Securities Analysis and Valuation, Operational Risk, Optimization Tools, Probability Theory, Risk Measures, Software for Financial Modeling, Stochastic Processes and Tools, Term Structure Modeling, Trading Cost Models, and Volatility Emphasizes both technical and implementation issues, providing researchers, educators, students, and practitioners with the necessary background to deal with issues related to financial modeling The 3-Volume Set contains coverage of the fundamentals and advances in financial modeling and provides the mathematical and statistical techniques needed to develop and test financial models Financial models have become increasingly commonplace, as well as complex. They are essential in a wide range of financial endeavors, and the Encyclopedia of Financial Models will help put them in perspective.

This evidence-based book serves as a clinical manual as well as a reference guide for the diagnosis and management of common nutritional issues in relation to gastrointestinal disease. Chapters cover nutrition assessment; macro- and micronutrient absorption; malabsorption; food allergies; prebiotics and dietary fiber; probiotics and intestinal microflora; nutrition and GI cancer; nutritional management of reflux; nutrition in IBS and IBD; nutrition in acute and chronic pancreatitis; enteral nutrition; parenteral nutrition; medical and endoscopic therapy of obesity; surgical therapy of obesity; pharmacologic nutrition, and nutritional counseling.

The Turkish economy is very dynamic and growing at phenomenal speeds. For instance, Turkey's first quarter GDP growth rate was 11 percent in 2011. This growth brings its own risks and benefits. The lessons learned from surviving and thriving in such an environment can be applied to supply chains in any country. Packed with interesting and timely examples from industries such as automotive, airline, and manufacturing, Risk Intelligent Supply Chains: How Leading Turkish Companies Thrive in the Age of Fragility presents strategic insights from various leading Turkish companies regarding their management of supply chain risks. Çağrı Haksöz brings the risk intelligent supply chain (RISC) concept to life for the first time. It answers the question of how to become a risk intelligent supply chain. He proposes the I-Quartet Model with four essential roles "Integrator, Inquirer, Improviser, and Ingenious," that any supply chain network must play to become risk intelligent. The book also presents never-before-published cases and practices of leading Turkish companies that thrive globally in the age of fragility with their supply chain risk intelligence. While providing real-life examples, the book also shares insights obtained in various scientific disciplines. It provides not only an industry focus but also details numerous industry approaches, analyzing their similarities and differences in a manner that allows each industry to learn from the other.

Models and methods for operational risks assessment and mitigation are gaining importance in financial institutions, healthcare organizations, industry, businesses and organisations in

general. This book introduces modern Operational Risk Management and describes how various data sources of different types, both numeric and semantic sources such as text can be integrated and analyzed. The book also demonstrates how Operational Risk Management is synergistic to other risk management activities such as Financial Risk Management and Safety Management. Operational Risk Management: a practical approach to intelligent data analysis provides practical and tested methodologies for combining structured and unstructured, semantic-based data, and numeric data, in Operational Risk Management (OpR) data analysis. Key Features: The book is presented in four parts: 1) Introduction to OpR Management, 2) Data for OpR Management, 3) OpR Analytics and 4) OpR Applications and its Integration with other Disciplines. Explores integration of semantic, unstructured textual data, in Operational Risk Management. Provides novel techniques for combining qualitative and quantitative information to assess risks and design mitigation strategies. Presents a comprehensive treatment of "near-misses" data and incidents in Operational Risk Management. Looks at case studies in the financial and industrial sector. Discusses application of ontology engineering to model knowledge used in Operational Risk Management. Many real life examples are presented, mostly based on the MUSING project co-funded by the EU FP6 Information Society Technology Programme. It provides a unique multidisciplinary perspective on the important and evolving topic of Operational Risk Management. The book will be useful to operational risk practitioners, risk managers in banks, hospitals and industry looking for modern approaches to risk management that combine an analysis of structured and unstructured data. The book will also benefit academics interested in research in this field, looking for techniques developed in response to real world problems.

This book presents the proceedings of the International Conference on Health, Safety, Fire, Environment, and Allied Sciences. It highlights latest developments in the field of science and technology aimed at improving health and safety in the workplace. The volume comprises content from leading scientists, engineers, and policy makers discussing issues relating to industrial safety, fire hazards and their management in industry, forests and other settings. Also dealt with are issues of occupational health in engineering, process and agricultural industry and protection against incidents of arson and terror attacks. The contents of this volume will be of interest to researchers, practitioners, and policy makers alike.

From the creator of the popular website Ask a Manager and New York's work-advice columnist comes a witty, practical guide to 200 difficult professional conversations—featuring all-new advice! There's a reason Alison Green has been called "the Dear Abby of the work world." Ten years as a workplace-advice columnist have taught her that people avoid awkward conversations in the office because they simply don't know what to say. Thankfully, Green does—and in this incredibly helpful book, she tackles the tough discussions you may need to have during your career. You'll learn what to say when • coworkers push their work on you—then take credit for it • you accidentally trash-talk someone in an email then hit "reply all" • you're being micromanaged—or not being managed at all • you catch a colleague in a lie • your boss seems unhappy with your work • your cubemate's loud speakerphone is making you homicidal • you got drunk at the holiday party Praise for Ask a Manager "A must-read for anyone who works . . . [Alison Green's] advice boils down to the idea that you should be professional (even when others are not) and that communicating in a straightforward manner with candor and kindness will get you far, no matter where you work."—Booklist (starred review) "The author's friendly, warm, no-nonsense writing is a pleasure to read, and her advice can be widely applied to relationships in all areas of readers' lives. Ideal for anyone new to the job market or new to management, or anyone hoping to improve their work experience."—Library Journal (starred review) "I am a huge fan of Alison Green's Ask a Manager column. This book is even better. It teaches us how to deal with many of the most vexing big and little problems in our workplaces—and to do so with grace, confidence, and a sense of humor."—Robert Sutton, Stanford professor and author of The No Asshole Rule and The Asshole Survival Guide "Ask a Manager is the ultimate playbook for navigating the traditional workforce in a diplomatic but firm way."—Erin Lowry, author of Broke Millennial: Stop Scraping By and Get Your Financial Life Together

Americans should be able to count on receiving health care that is safe. To achieve this, a new health care delivery system is needed—a system that both prevents errors from occurring, and learns from them when they do occur. The development of such a system requires a commitment by all stakeholders to a culture of safety and to the development of improved information systems for the delivery of health care. This national health information infrastructure is needed to provide immediate access to complete patient information and decision-support tools for clinicians and their patients. In addition, this infrastructure must capture patient safety information as a by-product of care and use this information to design even safer delivery systems. Health data standards are both a critical and time-sensitive building block of the national health information infrastructure. Building on the Institute of Medicine reports To Err Is Human and Crossing the Quality Chasm, Patient Safety puts forward a road map for the development and adoption of key health care data standards to support both information exchange and the reporting and analysis of patient safety data.

The first decade of the 21st century saw a remarkable number of large-scale disasters. Earthquakes in Haiti and Sumatra underscored the serious economic consequences that catastrophic events can have on developing countries, while 9/11 and Hurricane Katrina showed that first world nations remain vulnerable. The Social Roots of Risk argues against the widespread notion that cataclysmic occurrences are singular events, driven by forces beyond our control. Instead, Kathleen Tierney contends that disasters of all types—be they natural, technological, or economic—are rooted in common social and institutional sources. Put another way, risks and disasters are produced by the social order itself—by governing bodies, organizations, and groups that push for economic growth, oppose risk-reducing regulation, and escape responsibility for tremendous losses when they occur. Considering a wide range of historical and looming events—from a potential mega-earthquake in Tokyo that would cause devastation far greater than what we saw in 2011, to BP's accident history prior to the 2010 blowout—Tierney illustrates trends in our behavior, connecting what seem like one-off events to illuminate historical patterns. Like risk, human resilience also emerges from the social order, and this book makes a powerful case that we already have a significant capacity to reduce the losses that disasters

produce. A provocative rethinking of the way that we approach and remedy disasters, *The Social Roots of Risk* leaves readers with a better understanding of how our own actions make us vulnerable to the next big crisis—and what we can do to prevent it.

This book constitutes the refereed proceedings of the First International Conference on Advances in Computing and Data Sciences, ICACDS 2016, held in Ghaziabad, India, in November 2016. The 64 full papers were carefully reviewed and selected from 502 submissions. The papers are organized in topical sections on Advanced Computing; Communications; Informatics; Internet of Things; Data Sciences.

An essential guide to the calibrated risk analysis approach *The Failure of Risk Management* takes a close look at misused and misapplied basic analysis methods and shows how some of the most popular "risk management" methods are no better than astrology! Using examples from the 2008 credit crisis, natural disasters, outsourcing to China, engineering disasters, and more, Hubbard reveals critical flaws in risk management methods—and shows how all of these problems can be fixed. The solutions involve combinations of scientifically proven and frequently used methods from nuclear power, exploratory oil, and other areas of business and government. Finally, Hubbard explains how new forms of collaboration across all industries and government can improve risk management in every field. Douglas W. Hubbard (Glen Ellyn, IL) is the inventor of Applied Information Economics (AIE) and the author of Wiley's *How to Measure Anything: Finding the Value of Intangibles in Business* (978-0-470-11012-6), the #1 bestseller in business math on Amazon. He has applied innovative risk assessment and risk management methods in government and corporations since 1994. "Doug Hubbard, a recognized expert among experts in the field of risk management, covers the entire spectrum of risk management in this invaluable guide. There are specific value-added take aways in each chapter that are sure to enrich all readers including IT, business management, students, and academics alike" —Peter Julian, former chief-information officer of the New York Metro Transit Authority. President of Alliance Group consulting "In his trademark style, Doug asks the tough questions on risk management. A must-read not only for analysts, but also for the executive who is making critical business decisions." —Jim Franklin, VP Enterprise Performance Management and General Manager, Crystal Ball Global Business Unit, Oracle Corporation.

Safety and Reliability of Complex Engineered Systems contains the Proceedings of the 25th European Safety and Reliability Conference, ESREL 2015, held 7-10 September 2015 in Zurich, Switzerland. It includes about 570 papers accepted for presentation at the conference. These contributions focus on theories and methods in the area of risk, safety and

Because close calls, often termed near misses, don't raise the same concerns about malpractice liability and may be less emotionally charged than errors that cause serious harm, they are a unique source of learning for individuals and organizations striving to keep patients safe. This book tells how to take advantage of these lessons to prevent today's close call from turning into tomorrow's catastrophic event. Special Features: * Foreword by human error expert James Reason, Ph.D. * Authoritative tutorials on what the literature tells us about the concept of close calls and their identification, relationship with errors, and use in assessing and improving the safety and reliability of health care. * 15 detailed case studies from a variety of clinical disciplines and specialties to show how health care organizations use close calls to identify and solve patient safety problems Herbert William Heinrich has been one of the most influential safety pioneers. His work from the 1930s/1940s affects much of what is done in safety today – for better and worse. Heinrich's work is debated and heavily critiqued by some, while others defend it with zeal. Interestingly, few people who discuss the ideas have ever read his work or looked into its backgrounds; most do so based on hearsay, secondary sources, or mere opinion. One reason for this is that Heinrich's work has been out of print for decades: it is notoriously hard to find, and quality biographical information is hard to get. Based on some serious "safety archaeology," which provided access to many of Heinrich's original papers, books, and rather rich biographical information, this book aims to fill this gap. It deals with the life and work of Heinrich, the context he worked in, and his influences and legacy. The book defines the main themes in Heinrich's work and discusses them, paying attention to their origins, the developments that came from them, interpretations and attributions, and the critiques that they may have attracted over the years. This includes such well-known ideas and metaphor as the accident triangle, the accident sequence (dominoes), the hidden cost of accidents, the human element, and management responsibility. This book is the first to deal with the work and legacy of Heinrich as a whole, based on a unique richness of material and approaching the matter from several (new) angles. It also reflects on Heinrich's relevance for today's safety science and practice. Leading expert physicians and investigators from around the world review the state-of-the-art in the management of squamous cell head and neck cancer, with emphasis on coordinating different treatment modalities. The authors address several surgical issues, including laser-based surgery, larynx preservation approaches, salvage surgery, and neck management after non-operative treatment. They also discuss definitive radiation for larynx cancer, brachytherapy, altered fractionation radiation, intensity modulated radiation therapy, and the importance of tumor hypoxia, as well as the role of chemotherapy in sequential, concurrent, and adjuvant multi-modality treatment schedules. Other topics of special interest include targeted and gene therapies, multimodality management of nasopharyngeal cancer, chemoprevention, toxicity modification, quality of life outcomes, symptom palliation, and epidemiology.

Risk-based, Management-led, Audit-driven, Safety Management Systems, explains what a safety management system (SMS) is, and how it reduces risk in order to prevent accidental losses in an organization. It advocates the integration of safety and health into the day-to-day management of the enterprise as a value, rather than an add-on, and emphasizes that the safety movement must be initiated, led and maintained by management at all levels. The concepts of safety authority, responsibility and accountability are

described as the key ingredients to safety system success. Safety system audits are expounded in simple terms, and leading safety performance indicators are suggested as the most important measurements, in preference to lagging indicators. McKinnon highlights the importance of the identification and control of risk as a key basis for a SMS, with examples of a simple risk matrix and daily task risk assessment, as well as a simplified method of assessing, analyzing, and controlling risks. The book refers to international Guidelines on SMS, as well as the proposed International Organization for Standardization (ISO) 45001, which could soon become the international safety benchmark for organizations worldwide. Using clear, approachable examples, the chapters give a complete overview of an SMS and its components. Confirming to most of the safety management system Guidelines published by leading world authorities, this volume will allow organizations to structure their own world-class SMS.

Leading the way in this field, the Encyclopedia of Quantitative Risk Analysis and Assessment is the first publication to offer a modern, comprehensive and in-depth resource to the huge variety of disciplines involved. A truly international work, its coverage ranges across risk issues pertinent to life scientists, engineers, policy makers, healthcare professionals, the finance industry, the military and practising statisticians. Drawing on the expertise of world-renowned authors and editors in this field this title provides up-to-date material on drug safety, investment theory, public policy applications, transportation safety, public perception of risk, epidemiological risk, national defence and security, critical infrastructure, and program management. This major publication is easily accessible for all those involved in the field of risk assessment and analysis. For ease-of-use it is available in print and online.

Building on the revolutionary Institute of Medicine reports *To Err is Human* and *Crossing the Quality Chasm, Keeping Patients Safe* lays out guidelines for improving patient safety by changing nurses'™ working conditions and demands. Licensed nurses and unlicensed nursing assistants are critical participants in our national effort to protect patients from health care errors. The nature of the activities nurses typically perform " monitoring patients, educating home caretakers, performing treatments, and rescuing patients who are in crisis " provides an indispensable resource in detecting and remedying error-producing defects in the U.S. health care system. During the past two decades, substantial changes have been made in the organization and delivery of health care " and consequently in the job description and work environment of nurses. As patients are increasingly cared for as outpatients, nurses in hospitals and nursing homes deal with greater severity of illness. Problems in management practices, employee deployment, work and workspace design, and the basic safety culture of health care organizations place patients at further risk. This newest edition in the groundbreaking Institute of Medicine *Quality Chasm* series discusses the key aspects of the work environment for nurses and reviews the potential improvements in working conditions that are likely to have an impact on patient safety.

From the winner of the Nobel Prize in Literature, here is the universally acclaimed novel—winner of the Booker Prize and the basis for an award-winning film. This is Kazuo Ishiguro's profoundly compelling portrait of Stevens, the perfect butler, and of his fading, insular world in post-World War II England. Stevens, at the end of three decades of service at Darlington Hall, spending a day on a country drive, embarks as well on a journey through the past in an effort to reassure himself that he has served humanity by serving the "great gentleman," Lord Darlington. But lurking in his memory are doubts about the true nature of Lord Darlington's "greatness," and much graver doubts about the nature of his own life.

Over the last three decades the process industries have grown very rapidly, with corresponding increases in the quantities of hazardous materials in process, storage or transport. Plants have become larger and are often situated in or close to densely populated areas. Increased hazard of loss of life or property is continually highlighted with incidents such as Flixborough, Bhopal, Chernobyl, Three Mile Island, the Phillips 66 incident, and Piper Alpha to name but a few. The field of Loss Prevention is, and continues to, be of supreme importance to countless companies, municipalities and governments around the world, because of the trend for processing plants to become larger and often be situated in or close to densely populated areas, thus increasing the hazard of loss of life or property. This book is a detailed guidebook to defending against these, and many other, hazards. It could without exaggeration be referred to as the "bible" for the process industries. This is THE standard reference work for chemical and process engineering safety professionals. For years, it has been the most complete collection of information on the theory, practice, design elements, equipment, regulations and laws covering the field of process safety. An entire library of alternative books (and cross-referencing systems) would be needed to replace or improve upon it, but everything of importance to safety professionals, engineers and managers can be found in this all-encompassing reference instead. Frank Lees' world renowned work has been fully revised and expanded by a team of leading chemical and process engineers working under the guidance of one of the world's chief experts in this field. Sam Mannan is professor of chemical engineering at Texas A&M University, and heads the Mary Kay O'Connor Process Safety Center at Texas A&M. He received his MS and Ph.D. in chemical engineering from the University of Oklahoma, and joined the chemical engineering department at Texas A&M University as a professor in 1997. He has over 20 years of experience as an engineer, working both in industry and academia. New detail is added to chapters on fire safety, engineering, explosion hazards, analysis and suppression, and new appendices feature more recent disasters. The many thousands of references have been updated along with standards and codes of practice issued by authorities in the US, UK/Europe and internationally. In addition to all this, more regulatory relevance and case studies have been included in this edition. Written in a clear and concise style, *Loss Prevention in the Process Industries* covers traditional areas of personal safety as well as the more technological aspects and thus provides balanced and in-depth coverage of the whole field of safety and loss prevention. - A must-have standard reference for chemical and process engineering safety professionals - The most complete collection of information on the theory, practice, design elements, equipment and laws that pertain to process safety - Only single work to provide everything; principles, practice, codes, standards, data and references needed by those practicing in the field

Getting the right diagnosis is a key aspect of health care - it provides an explanation of a patient's health problem and informs subsequent health care decisions. The diagnostic process is a complex, collaborative activity that involves clinical reasoning and information gathering to determine a patient's health problem. According to *Improving Diagnosis in Health Care*, diagnostic errors-inaccurate or delayed diagnoses-persist throughout all settings of care and continue to harm an unacceptable number of patients. It is likely that most people will experience at least one diagnostic error in their lifetime, sometimes with devastating consequences. Diagnostic errors may cause harm to patients by preventing or delaying appropriate treatment, providing unnecessary or harmful treatment, or resulting in

psychological or financial repercussions. The committee concluded that improving the diagnostic process is not only possible, but also represents a moral, professional, and public health imperative. Improving Diagnosis in Health Care a continuation of the landmark Institute of Medicine reports To Err Is Human (2000) and Crossing the Quality Chasm (2001) finds that diagnosis-and, in particular, the occurrence of diagnostic errors"has been largely unappreciated in efforts to improve the quality and safety of health care. Without a dedicated focus on improving diagnosis, diagnostic errors will likely worsen as the delivery of health care and the diagnostic process continue to increase in complexity. Just as the diagnostic process is a collaborative activity, improving diagnosis will require collaboration and a widespread commitment to change among health care professionals, health care organizations, patients and their families, researchers, and policy makers. The recommendations of Improving Diagnosis in Health Care contribute to the growing momentum for change in this crucial area of health care quality and safety.

In the aftermath of catastrophes, it is common to find prior indicators, missed signals, and dismissed alerts that, had they been recognized and appropriately managed before the event, could have resulted in the undesired event being averted. These indicators are typically called "precursors." Accident Precursor Analysis and Management: Reducing Technological Risk Through Diligence documents various industrial and academic approaches to detecting, analyzing, and benefiting from accident precursors and examines public-sector and private-sector roles in the collection and use of precursor information. The book includes the analysis, findings and recommendations of the authoring NAE committee as well as eleven individually authored background papers on the opportunity of precursor analysis and management, risk assessment, risk management, and linking risk assessment and management.

This book covers the design, implementation, and auditing of structured occupational health and safety management systems (SMS), sometimes referred to as safety programs. Every workplace has a form of SMS in place as required by safety regulations and laws. The Design, Implementation, and Audit of Occupational Health and Safety Management Systems describes some of the elements that constitute an SMS, the implementation process, and the auditing of the conformance to standards. It covers more than 60 processes, programs, or standards of a system, and gives important background information on each element. Guidelines and examples show how to design and implement the risk-based processes, programs and standards, and how to audit them against standards. The text is based on actual SMS implementation experiences across a wide range of industries. It offers a roadmap to any organization which has no structured SMS. It will guide them through the process of upgrading their health and safety processes to conform to local and international standards. It will lead them away from relying on reactive safety measures such as injury rates, to proactive actions which are measured by the audit of the system. Features Covers more than 60 elements of a safety management system (SMS) Provides practical examples of how to design, implement, and audit a structured SMS Based on actual SMS implementation experience across a wide range of industries Presents the integration of an SMS into the day-to-day functions of the organization

Safety ManagementNear Miss Identification, Recognition, and InvestigationCRC Press

All anesthesiologists eventually face the fear of a "near miss," when a patient's life has been put at risk. Learning from the experience is crucial to professionalism and the ongoing development of expertise. Drawing on forty-plus years of practice in major metropolitan hospitals in the United States, Norway, and South Africa, John Brock-Utne, MD presents 80 carefully selected cases that provide the basis for lessons and tips to prevent potential disaster. The cases emphasize problem-centered learning and span a broad range of topics—from an outbreak of operating room infection (could it be the anesthesia equipment?), complications of fiberoptic intubations, and problems with epidural drug pumps, to performing an urgent tracheostomy for the first time, working with an aggressive surgeon, and what to do when a patient falls off the operating table during surgery. 80 true-story clinical "near misses" never before published, ideal for problem-centered learning, recommendations, references, and discussions accompany most cases, rich basis for teaching discussions both in or out of the operating room, settings include sophisticated as well as rudimentary anesthetic environments, complements the author's other case book, Clinical Anesthesia: Near Misses and Lessons Learned (Springer, 2008).

Create, maintain, and manage a continual cybersecurity incident response program using the practical steps presented in this book. Don't allow your cybersecurity incident responses (IR) to fall short of the mark due to lack of planning, preparation, leadership, and management support. Surviving an incident, or a breach, requires the best response possible. This book provides practical guidance for the containment, eradication, and recovery from cybersecurity events and incidents. The book takes the approach that incident response should be a continual program. Leaders must understand the organizational environment, the strengths and weaknesses of the program and team, and how to strategically respond. Successful behaviors and actions required for each phase of incident response are explored in the book. Straight from NIST 800-61, these actions include: Planning and practicing Detection Containment Eradication Post-incident actions What You'll Learn Know the sub-categories of the NIST Cybersecurity Framework Understand the components of incident response Go beyond the incident response plan Turn the plan into a program that needs vision, leadership, and culture to make it successful Be effective in your role on the incident response team Who This Book Is For Cybersecurity leaders, executives, consultants, and entry-level professionals responsible for executing the incident response plan when something goes wrong

The use of hazardous chemicals such as methyl isocyanate can be a significant concern to the residents of communities adjacent to chemical facilities, but is often an integral part of the chemical manufacturing process. In order to ensure that chemical manufacturing takes place in a manner that is safe for workers, members of the local community, and the environment, the philosophy of inherently safer processing can be used to identify opportunities to eliminate or reduce the hazards associated with chemical processing. However, the concepts of inherently safer process analysis have not yet been adopted in all chemical manufacturing plants. The Use and Storage of Methyl Isocyanate (MIC) at Bayer CropScience presents a possible framework to help plant managers choose between alternative processing options-considering factors such as environmental impact and product yield as well as safety- to develop a chemical manufacturing system. In 2008, an explosion at the Bayer CropScience chemical production plant in Institute, West Virginia, resulted in the deaths of two employees, a fire within the production unit, and extensive damage to nearby structures. The accident drew renewed attention to the fact that the Bayer facility manufactured and stores methyl isocyanate, or MIC - a volatile, highly toxic chemical used in the production of carbamate pesticides and the agent responsible for thousands of death in Bhopal, India, in 1984. In the Institute accident, debris from the blast hit the shield surrounding a MIC storage tank, and although the container was not damaged, an investigation by the U.S. Chemical Safety and Hazard Investigation Board found that the debris could have struck a relief valve vent pipe and cause the release of MIC to the atmosphere. The Board's investigation also highlighted a number of weaknesses in the Bayer facility's emergency response systems. In light of these concerns, the Board requested the National Research Council convene a committee of independent experts to write a report that examines the use and storage of MIC at the Bayer facility. The Use and Storage of Methyl Isocyanate (MIC) at Bayer CropScience also evaluates the analyses on alternative production methods for MIC and carbamate pesticides performed

by Bayer and the previous owners of the facility.

Near Miss Reporting as a Safety Tool arises from a meeting of safety professionals, academicians, and consultants from Western-Europe and Canada held in Eindhoven, the Netherlands, in September 1989. The book deals with near-miss reporting in various systems, mostly in the context of errors and accidents. The book begins by discussing the effects of bad management decisions in the design phase and a framework that will describe or manage these near misses through reporting, description, analysis, interpretation, and suggestions. Seven modules that compose this framework, called the Near Miss Management System (NMMS), along with pertinent cases, are explained. The book notes that near misses are ignored because of technical myopia, action-oriented organizations, event-focused organizations, consequence driven, and variables in quality of reporting. The organizational and management aspects of the NMMS are then analyzed within the commonly accepted culture and experience of the company. The book also presents comparative application of near miss information systems covering a wide range of industrial and transport environment. Such presentation allows differences and similarities to come into view more easily. The text will prove valuable for safety professionals in the nuclear and chemical industry and in road, railway, and air traffic management. Professors and students in safety management will likewise appreciate this book.

This book reviews existing operational software failure analysis techniques and proposes near-miss analysis as a novel, and new technique for investigating and preventing software failures. The authors provide details on how near-miss analysis techniques focus on the time-window before the software failure actually unfolds, so as to detect the high-risk conditions that can lead to a major failure. They detail how by alerting system users of an upcoming software failure, the detection of near misses provides an opportunity to collect at runtime failure-related data that is complete and relevant. They present a near-miss management systems (NMS) for detecting upcoming software failures, which can contribute significantly to the improvement of the accuracy of the software failure analysis. A prototype of the NMS is implemented and is discussed in the book. The authors give a practical hands-on approach towards doing software failure investigations by means of near-miss analysis that is of use to industry and academia

This book provides a valuable reference tool for technical and management personnel who lead or are a part of incident investigation teams. This second edition focuses on investigating process-related incidents with real or potential catastrophic consequences. It presents on-the-job information, techniques, and examples that support successful investigations. The methodologies, tools, and techniques described in this book can also be applied when investigating other types of events such as reliability, quality, occupational health, and safety incidents. The accompanying CD-ROM contains the text of the book for portability as well as additional supporting tools for on-site reference and trouble shooting. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

This book examines construction safety from the perspective of informatics and econometrics. It demonstrates the potential of employing various information technology approaches to share construction safety knowledge. In addition, it presents the application of econometrics in construction safety studies, such as an analytic hierarchy process used to create a construction safety index. It also discusses structure equation and dynamic panel models for the analysis of construction safety claims. Lastly, it describes the use of mathematical and econometric models to investigate construction practitioners' safety.

The Oscar-shortlisted documentary *Command and Control*, directed by Robert Kenner, finds its origins in Eric Schlosser's book and continues to explore the little-known history of the management and safety concerns of America's nuclear arsenal. "Deeply reported, deeply frightening . . . a techno-thriller of the first order." —Los Angeles Times "A devastatingly lucid and detailed new history of nuclear weapons in the U.S. . . . fascinating." —Lev Grossman, TIME Magazine A myth-shattering exposé of America's nuclear weapons Famed investigative journalist Eric Schlosser digs deep to uncover secrets about the management of America's nuclear arsenal. A groundbreaking account of accidents, near misses, extraordinary heroism, and technological breakthroughs, *Command and Control* explores the dilemma that has existed since the dawn of the nuclear age: How do you deploy weapons of mass destruction without being destroyed by them? That question has never been resolved—and Schlosser reveals how the combination of human fallibility and technological complexity still poses a grave risk to mankind. While the harms of global warming increasingly dominate the news, the equally dangerous yet more immediate threat of nuclear weapons has been largely forgotten. Written with the vibrancy of a first-rate thriller, *Command and Control* interweaves the minute-by-minute story of an accident at a nuclear missile silo in rural Arkansas with a historical narrative that spans more than fifty years. It depicts the urgent effort by American scientists, policy makers, and military officers to ensure that nuclear weapons can't be stolen, sabotaged, used without permission, or detonated inadvertently. Schlosser also looks at the Cold War from a new perspective, offering history from the ground up, telling the stories of bomber pilots, missile commanders, maintenance crews, and other ordinary servicemen who risked their lives to avert a nuclear holocaust. At the heart of the book lies the struggle, amid the rolling hills and small farms of Damascus, Arkansas, to prevent the explosion of a ballistic missile carrying the most powerful nuclear warhead ever built by the United States. Drawing on recently declassified documents and interviews with people who designed and routinely handled nuclear weapons, *Command and Control* takes readers into a terrifying but fascinating world that, until now, has been largely hidden from view. Through the details of a single accident, Schlosser illustrates how an unlikely event can become unavoidable, how small risks can have terrible consequences, and how the most brilliant minds in the nation can only provide us with an illusion of control. Audacious, gripping, and unforgettable, *Command and Control* is a tour de force of investigative journalism, an eye-opening look at the dangers of America's nuclear age.

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