

Bp Texas City Incident

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An Exploratory Sense Making Tool for Low Probability High Consequence Organization
- Jui-Shan Hsu 2008

Failure to Learn - Andrew Hopkins 2008
"This book discusses the causes of a major explosion at the Texas City Oil Refinery on March 23, 2005. The explosion killed 15

workers and injured more than 170 others. Failure to Learn also analyses the similarities between this event and the Longford Gas Plant explosion in Victoria in 1998."--Provided by publisher.

Incidents That Define Process Safety -
CCPS (Center for Chemical Process Safety)
2008-04-04

Incidents That Define Process Safety describes approximately fifty incidents that have had a significant impact on the chemical and refining industries' approaches to modern process safety. Events are described in detail so readers get a fundamental understanding of the root causes, the consequences, the lessons learned, and actions that can prevent a recurrence. There are exhaustive investigative reports about these events, allowing you to apply the resulting safety principles to their current operations.

An Engineer's View of Human Error - Trevor A. Kletz 2008

This title looks at how people, as opposed to technology and computers within plants, are arguably the most unreliable factor, leading to dangerous situations.

Risk Assessment In Chemical Process Industries - Faisal Irshad Khan 1998

Contents: Introduction, Qualitative Methods

of Risk Assessment, Quantitative Methods of Risk Assessment-I: Consequence Analysis, Quantitative Methods of Risk Assessment-II: Rapid Risk Assessment, Quantitative Methods of Risk Assessment-III: Probabilistic Hazard Assessment, Studies on Chain, of Accidents (Domino Effects), Methods of Hazard Identification, Screening and Ranking, Application of Risk Analysis in Process Design.

Human Fatigue Risk Management - Susan L. Murray 2016-06-24

Human Fatigue Risk Management: Improving Safety in the Chemical Processing Industry teaches users everything they need to know to mitigate the risk of fatigued workers in a plant or refinery. As human fatigue has been directly linked to several major disasters, the book explores the API RP 755 guidelines that were released to reduce these types of incidents. This book will help

users follow API RP 755 and/or implement a fatigue risk management system in their organization. Susan Murray, a recognized expert in the field of sleep deprivation and its relation to high hazard industries, has written this book to be useful for HSE managers, plant and project managers, occupational safety professionals, and engineers and managers in the chemical processing industry. As scheduling of shifts is an important factor in reducing fatigue and accident rates, users will learn the benefits of more frequent staff rotation and how to implement an ideal scheduling plan. The book goes beyond API RP 755, offering more detailed understanding of why certain measures for managing fatigue are beneficial to a company, including examples of how theory can be put into practice. It is a simple, digestible book for managers who are interested in addressing human factor issues at their workplace in order to raise

safety standards. Covers sleep, sleep disorders, and the consequences of fatigue as related to high-hazard industries Helps improve safety standards at the plant level Provides information on how to comply with API RP 755 and related OSHA 29CFR1910 articles Relates fatigue and human performance to accidents, helping readers make a case for implementing a human fatigue risk management policy, which, in turn, prevents loss of property and life

Failure to Learn - Andrew Hopkins 2010
"This book discusses the causes of a major explosion at the Texas City Oil Refinery on March 23, 2005. The explosion killed 15 workers and injured more than 170 others. Failure to Learn also analyses the similarities between this event and the Longford Gas Plant explosion in Victoria in 1998"--Provided by publisher.

Developing Process Safety Indicators - 2006
Describes a six-stage process which can be

adopted by organisations wishing to implement a programme of performance monitoring for process safety risks.
Refinery Explosion and Fire - United States. Chemical Safety and Hazard Investigation Board 2007

Learning from Failures - Ashraf Labib
2014-06-19

Learning from Failures provides techniques to explore the root causes of specific disasters and how we can learn from them. It focuses on a number of well-known case studies, including: the sinking of the Titanic; the BP Texas City incident; the Chernobyl disaster; the NASA Space Shuttle Columbia accident; the Bhopal disaster; and the Concorde accident. This title is an ideal teaching aid, informed by the author's extensive teaching and practical experience and including a list of learning outcomes at the beginning of each

chapter, detailed derivation, and many solved examples for modeling and decision analysis. This book discusses the value in applying different models as mental maps to analyze disasters. The analysis of these case studies helps to demonstrate how subjectivity that relies on opinions of experts can be turned into modeling approaches that can ensure repeatability and consistency of results. The book explains how the lessons learned by studying these individual cases can be applied to a wide range of industries. This work is an ideal resource for undergraduate and postgraduate students, and will also be useful for industry professionals who wish to avoid repeating mistakes that resulted in devastating consequences. Explores the root cause of disasters and various preventative measures Links theory with practice in regard to risk, safety, and reliability analyses Uses analytical

techniques originating from reliability analysis of equipment failures, multiple criteria decision making, and artificial intelligence domains

Macroergonomics - Hal W. Hendrick
2002-04-01

This book's primary objective is to provide a comprehensive coverage of ergonomics in overall work system analysis and design. It provides a summary of the historical development of macroergonomics. It explains how an understanding of macroergonomics can lead to improvements in such things as reducing work-related lost time accidents; and describes

Incidents That Define Process Safety -
CCPS (Center for Chemical Process Safety)
2013-07-01

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chemical and refining industries' approaches to modern process safety. Events are described in detail so readers get a fundamental understanding of the root causes, the consequences, the lessons learned, and actions that can prevent a recurrence. There are exhaustive investigative reports about these events, allowing you to apply the resulting safety principles to their current operations.

Oil and Gas Production Handbook: An Introduction to Oil and Gas Production
- Havard Devold 2013

City on Fire - Bill Minutaglio 2014-02-15
Original edition: New York: HarperCollins, 2003.

The Texas City Disaster, 1947 - Hugh W. Stephens 2010-01-01

On April 16, 1947, a small fire broke out among bags of ammonium nitrate fertilizer in the hold of the ship Grandcamp as it lay

docked at Texas City, Texas. Despite immediate attempts to extinguish the fire, it rapidly intensified until the Grandcamp exploded in a blast that caused massive loss of life and property. In the ensuing chaos, no one gave much thought to the ship in the next slip, the High Flyer. It exploded sixteen hours later. The story of the Texas City explosions—America’s worst industrial disaster in terms of casualties—has never been fully told until now. In this book, Hugh W. Stephens draws on official reports, newspaper and magazine articles, personal letters, and interviews with several dozen survivors to provide the first full account of the disaster at Texas City. Stephens describes the two explosions and the heroic efforts of Southeast Texans to rescue survivors and cope with extensive property damage. At the same time, he explores why the disaster occurred, showing how a chain of indifference and negligence made a

serious industrial accident almost inevitable, while a lack of emergency planning allowed it to escalate into a major catastrophe. This gripping, cautionary tale holds important lessons for a wide reading public.

Chemical Process Safety - Roy E. Sanders
2011-08-30

Gives insight into eliminating specific classes of hazards, while providing real case histories with valuable messages. There are practical sections on mechanical integrity, management of change, and incident investigation programs, along with a long list of helpful resources. New chapter in this edition covers accidents involving compressors, hoses and pumps. Stay up to date on all the latest OSHA requirements, including the OSHA required Management of Change, Mechanical Integrity and Incident Investigation regulations Learn how to eliminate hazards

in the design, operation and maintenance of chemical process plants and petroleum refineries World-renowned expert in process safety, Roy Sanders, shows you how to reduce risks in your plant Learn from the mistakes of others, so that your plant doesn't suffer the same fate Save lives, reduce loss, by following the principles outlined in this must-have text for process safety. There is no other book like it!

BP Texas City, TX Refinery Fire - 2006

On July 28, 2005, 4 months after a devastating incident in the Isomerization (Isom) Unit that killed 15 workers and injured 180, the BP Texas City refinery experienced a major fire in the Resid Hydrotreater Unit (RHU) that caused a reported \$30 million in property damage. One employee sustained a minor injury during the emergency unit shutdown and there were no fatalities. The U.S. Chemical

Safety and Hazard Investigation Board (CSB) issues this Safety Bulletin to focus attention on process equipment configuration control and positive material verification of critical alloy steel piping components. The CSB recommends that the refining, petrochemical, and chemical industries review material verification programs to ensure that maintenance procedures include sufficient controls and positive material identification (PMI) testing to prevent improper material substitutions in hazardous process systems.

Communities in Action - National Academies of Sciences, Engineering, and Medicine 2017-04-27

In the United States, some populations suffer from far greater disparities in health than others. Those disparities are caused not only by fundamental differences in health status across segments of the population, but also because of inequities in

factors that impact health status, so-called determinants of health. Only part of an individual's health status depends on his or her behavior and choice; community-wide problems like poverty, unemployment, poor education, inadequate housing, poor public transportation, interpersonal violence, and decaying neighborhoods also contribute to health inequities, as well as the historic and ongoing interplay of structures, policies, and norms that shape lives. When these factors are not optimal in a community, it does not mean they are intractable: such inequities can be mitigated by social policies that can shape health in powerful ways. *Communities in Action: Pathways to Health Equity* seeks to delineate the causes of and the solutions to health inequities in the United States. This report focuses on what communities can do to promote health equity, what actions are needed by the many and varied stakeholders that are part

of communities or support them, as well as the root causes and structural barriers that need to be overcome.

In Too Deep - Stanley Reed 2010-12-20

The truth behind the greatest environmental disaster in U.S. history In 2005, fifteen workers were killed when BP's Texas City Refinery exploded. In 2006, corroded pipes owned by BP led to an oil spill in Alaska. Now, in 2010, eleven men drilling for BP were killed in the blowout of the Macondo well in the Gulf of Mexico. What's next? In *In Too Deep: BP and the Drilling Race That Took it Down*, Stanley Reed—a journalist who has covered BP for over a decade—and investigative reporter Alison Fitzgerald answer not only that question, but also examine why these disasters happen to BP so much more than other large oil companies. Places the blame on a corporate culture created by former BP CEO John Browne who was forced to

resign in 2007 after he lied in court documents in a case involving his gay lover
Details a BP built on risk-taking and cost-cutting Examines the past, present, and future of BP In August 2010, BP successfully "killed" the company's damaged deepwater well. But, the environmental fallout and public relations campaign to rebuild the brand are just beginning. In Too Deep details why BP, why now, and what's next for this oil giant.

The BP Texas City Disaster and Worker Safety - United States. Congress. House. Committee on Education and Labor 2007

Power Failure - Mimi Swartz 2004-03-09
"They're still trying to hide the weenie," thought Sherron Watkins as she read a newspaper clipping about Enron two weeks before Christmas, 2001. . . It quoted [CFO] Jeff McMahon addressing the company's creditors and cautioning them against a

rash judgment. "Don't assume that there is a smoking gun." Sherron knew Enron well enough to know that the company was in extreme spin mode... Power Failure is the electrifying behind-the-scenes story of the collapse of Enron, the high-flying gas and energy company touted as the poster child of the New Economy that, in its hubris, had aspired to be "The World's Leading Company," and had briefly been the seventh largest corporation in America. Written by prizewinning journalist Mimi Swartz, and substantially based on the never-before-published revelations of former Enron vice-president Sherron Watkins, as well as hundreds of other interviews, Power Failure shows the human face beyond the greed, arrogance, and raw ambition that fueled the company's meteoric rise in the late 1990s. At the dawn of the new century, Ken Lay's and Jeff Skilling's faces graced the covers of

business magazines, and Enron's money oiled the political machinery behind George W. Bush's election campaign. But as Wall Street analysts sang Enron's praises, and its stock spiraled dizzily into the stratosphere, the company's leaders were madly scrambling to manufacture illusory profits, hide its ballooning debt, and bully Wall Street into buying its fictional accounting and off-balance-sheet investment vehicles. The story of Enron's fall is a morality tale writ large, performed on a stage with an unforgettable array of props and side plots, from parking lots overflowing with Boxsters and BMWs to hot-house office affairs and executive tantrums. Among the cast of characters Mimi Swartz and Sherron Watkins observe with shrewd Texas eyes and an insider's perspective are: CEO Ken Lay, Enron's "outside face," who was more interested in playing diplomat and paving the road to a

political career than in managing Enron's high-testosterone, anything-goes culture; Jeff Skilling, the mastermind behind Enron's mercenary trading culture, who transformed himself from a nerdy executive into the personification of millennial cool; Rebecca Mark, the savvy and seductive head of Enron's international division, who was Skilling's sole rival to take over the company; and Andy Fastow, whose childish pranks early in his career gave way to something far more destructive. Desperate to be a player in Enron's deal-making, trader-oriented culture, Fastow transformed Enron's finance department into a "profit center," creating a honeycomb of financial entities to bolster Enron's "profits," while diverting tens of millions of dollars into his own pockets. An unprecedented chronicle of Enron's shocking collapse, *Power Failure* should take its place alongside the classics of

previous decades – Barbarians at the Gate and Liar’s Poker – as one of the cautionary tales of our times.

The BP Texas City Disaster and Worker Safety - United States. Congress. House. Committee on Education and Labor 2007

The Human Contribution - J. T. Reason 2008

The Human Contribution is vital reading for all professionals in high-consequence environments and for managers of any complex system. The book draws its illustrative material from a wide variety of hazardous domains, with the emphasis on healthcare reflecting the author's focus on patient safety over the last decade. All students of human factors - however seasoned - will also find it an invaluable and thought-provoking read.

Ten Pathways to Death and Disaster - Michael Quinlan 2014

Why do mine disasters continue to occur in wealthy countries when major mine hazards have been known for over 200 years and subject to regulation for well over a century? What lessons can be drawn from these disasters and are mine operators, regulators and others drawing the correct conclusions from such events? Why is mining significantly safer in some countries than in others? Are the underlying causes of disasters substantially different from those that result in one or two fatalities? This book seeks to answer these questions by systematically analysing mine disasters and fatal incidents in five countries (Australia, Britain, Canada, New Zealand and the USA) since 1992. It finds that there are 10 pattern causes which repeatedly recur in these incidents, namely: engineering, design and maintenance flaws, failure to heed warning signs, flaws in risk assessment, flaws in

management systems, flaws in system auditing, economic/reward pressures compromising safety, failures in regulatory oversight, worker/supervisor concerns that were ignored, poor worker/management communication and trust, and flaws in emergency and rescue procedures. The vast majority of incidents entailed at least three of these pattern causes and many exhibited five or more. The book also demonstrates these pattern deficiencies are not confined to mining but can be identified in other workplace disasters including aircraft crashes, oil-rig explosions, refinery and factory fires, and shipping disasters. At the same time, the examination finds no evidence to support other popular explanations of mine safety which focus on behaviour, culture or complex technologies. It finds that there is little to differentiate the failures that lead to single death or multiple deaths and 'disaster' studies would

benefit from also examining near misses. The book examines why pattern causes have proved so resistant to intervention by governments while also identifying instances where lessons have been learned. How, for example, do governments strike a balance between prescriptive regulation and risk management/system-based approaches? Only by understanding and modifying the political economy of safety can these problems be addressed. It concludes by proposing an agenda for change that will address pattern causes and contribute to safe and productive work environments. The book is written for those studying OHS, mine safety and risk management as well as those involved in the management or regulation of high hazard workplaces. In the news... Ten steps from disaster, The International Trade Union Confederation - Health & Safety News, 20 April 2015 Read

full article...Disasters in high hazard workplaces are 'predictable and preventable', Hazards Magazine, March 2015 Read full article...Mine Accidents and Disaster Database, Mine Safety Institute Australia, March 2015 Read full article...OHS Reps - Research News, SafetyNetJournal, 12 February 2015 Read full article...The 10 "pattern" causes of workplace disasters, OHSAlert, 11 February 2015 Read full article...New book challenges current OHS trends, SafetyAtWorkBlog, 2 February 2015 Read full article...Tasmania needs more mines inspectors, Australian Mining Magazine, 2 October 2014 Read full article...Australian mine deaths preventable if warnings heeded, WorkSafe seminar hears, ABC News, 2 October 2014 Read full article...Lessons from Tasmania's mining industry for all workplaces, TasmanianTimes.com, 1 October 2014 Read

full article...Auditor Says Tasmanian Mine Safety in need of Urgent Review, Australasian Mining Review, 16 July, 2014 Read full article...Damning report on Tasmanian mine safety finds inspectors over-stretched, poorly paid, ABC News, 15 July 2014 Read full article...Call for support for grieving families backed, The Examiner, 22 April 2014 Read full article...

Alarm Management for Process Control, Second Edition - Doug Rothenberg 2018-02

This book elevates alarm management from a fragmented collection of procedures, metrics, experiences, and trial-and-error, to the level of a technology discipline. It provides a complete treatment of best practices in alarm management. The technology and approaches found here provide the opportunity to completely understand the what, the why, and the how of successful alarm systems. No modern

industrial enterprise, particularly in such areas as chemical processing, can operate without a secure and reliable infrastructure of alarms and controls-they are an integral part of all production management and control systems. Improving alarm management is an effective way to provide operators with high-value support and guidance to successfully manage industrial plant operations. Readers will find: Recommendations and guidelines are developed from fundamental concepts to provide powerful technical tools and workable approaches; Alarms are treated as indicators of abnormal situations, not simply sensor readings that might be out of position; Alarm improvement is intimately linked to infrastructure management, including the vital role of plant maintenance to alarm management, the need to manage operators' charter to continue to operate during abnormal

situations vs. cease operation, and the importance of situation awareness without undue reliance upon alarms. The ability to appreciate technical issues is important, but this book requires no previous specific technical, educational, or experiential background. The style and content are very accessible to a broad industrial audience from board operator to plant manager. All critical tasks are explained with workflow processes, examples, and insight into what it all means. Alternatives are offered everywhere to enable users to tailor-make solutions to their particular sites.

Management Obligations for Health and Safety - Gregory W. Smith 2016-04-19
In recent years, the safety management field has placed leadership and commitment at the center of effective workplace health and safety programs. At the same time, personal liability for workplace health and safety has increased, resulting in poor

outcomes for individual managers. Discussing the minimum expectations that courts and tribunals have of managers, *Management Obligations for Health and Safety* examines the relationship between those expectations and effective safety performance. The book looks at safety management from the perspective of management obligations. What expectations are placed on managers at all levels of an organization to ensure that the workplace and systems of work are safe, and how are these expectations considered and analyzed by courts and public inquiries? As importantly, the book explores how management actions in relation to these obligations and expectations influence, positively or negatively, the safety performance of an organization. With examples drawn from legal and quasi-legal processes, one of the more enlightening and thought-provoking features of this book

is the extensive use of cross examination taken from various proceedings. No one person reacts the same to finding him- or herself responsible for managing the aftermath of a death at work, or having to deal with the immediate pressure of being subject to interviews and investigation by safety regulators (much less the drawn-out experience of the legal process), but one of the most constant reactions is "Why didn't anybody tell me about this?" Stressing the importance of safety culture, this book details the true nature of the expectations that are placed on managers by virtue of their obligation to provide a safe workplace. **Essentials of Chemical Engineering** - Lewis Allison 2019-06-10 This book on chemical engineering elucidates on the concepts and theories fundamental to this field of study. Chemical Engineering is a branch of engineering that uses the principles of applied physics,

chemistry, life sciences and other scientific fields for production, use and transformation of chemicals, materials and energy to serve various engineering purposes. There has been rapid progress in this field and its applications are finding their way across multiple industries such as biotechnology, control engineering, plant design, etc. This book offers information about the essential topics of chemical engineering while also discussing the progress made in modern theory and principles of the field. It elucidates new techniques and their applications in a multidisciplinary manner. This book traces the progress of this field and highlights some of its key concepts. For all readers who are interested in chemical engineering, the case studies included in this book will serve as an excellent guide to develop a comprehensive understanding.

Hazop and Hazan - Trevor A. Kletz 2001

Hazop and Hazan were developed to identify and assess hazards in the process industries. The use of these techniques leads to safer plants. Understanding the practical issues involved in their correct implementation is the theme of this book. *Human and Organisational Factors* - Benoît Journé 2020-01-02

This open access book addresses several questions regarding the implementation of human and organisational factors (HOF) so that recent improvements in industrial safety can be built upon. It addresses sources of frustration in senior management with high expectations of operational recommendations and disquiet on the part of HOF specialists struggling to have an impact on high-level decision making. The brief explores these issues with an emphasis on examples and lessons learned based on the experience of its authors, who come from different academic

disciplines and various industrial sectors such as oil and gas, energy and transportation. It then offers some ways forward for a better consideration of HOF in hazardous companies with a view of promoting safety and facing challenges in a rapidly changing world.

Failure to Learn - Mandarin Version -
FutureMedia 2015-03-01

World-renowned safety culture expert Professor Andrew Hopkins discusses the causes of a major explosion that occurred at the BP Texas City Refinery on 23 March 2005. The explosion killed 15 workers and injured more than 170 others. Failure to Learn also analyses the similarities between this even and the Longford gas plant explosion in Victoria in 1998, the latter of which is featured in his earlier book, Lessons from Longford. Hopkins poses questions such as: □ How can companies better design themselves to manage major

hazards? □ Who was blamed for the explosion? □ What were the real causes? □ Why had the lessons not been learnt from earlier incidents at Longford and elsewhere? Hopkins received the 2008 European Process Safety Centre Award for extraordinary contribution to process safety, making this the first time the prize was awarded to someone who is based outside of Europe. Failure to Learn is insightfully written and is an essential reference for all OHS professionals. Other titles by Hopkins available through FutureMedia: □ Nightmare pipeline failures □ Disastrous Decisions □ Failure to Learn: BP Texas City Refinery Disaster □ Learning from High Reliability Organisations □ Lessons from Gretley: Mindful Leadership and the Law □ Lessons from Longford: the Esso Gas Plant Explosion □ Safety, Culture and Risk For more information on FutureMedia products and services, visit

www.futuremedia.com.au or

www.processsafety.com.au

BP Blowout - Daniel Jacobs 2016-09-30

The story of the worst environmental disaster in American history and its enduring consequences BP Blowout is the first comprehensive account of the legal, economic, and environmental consequences of the disaster that resulted from the April 2010 blowout at a BP well in the Gulf of Mexico. The accident, which destroyed the Deepwater Horizon oil rig, killed 11 people. The ensuing oil discharge—the largest ever in U.S. waters—polluted much of the Gulf for months, wreaking havoc on its inhabitants and the environment. A management professor and former award-winning Justice Department lawyer responsible for enforcing environmental laws, Daniel Jacobs tells the story that neither BP nor the federal government wants heard: how the company and the

government fell short, both in terms of preventing and responding to the disaster. Critical details about the cause and aftermath of the disaster have emerged through court proceedings and with time. The key finding of the federal judge who presided over the civil litigation was that the blowout resulted from BP's gross negligence. BP has paid tens of billions of dollars to settle claims and lawsuits. The company also has pled guilty to manslaughter in a separate criminal case, but no one responsible for the tragedy is going to prison. BP Blowout provides new and disturbing details in a definitive narrative that takes the reader inside BP, the White House, Congress and the courthouse. This is an important book for readers interested in the environment, sustainability, public policy, leadership, and risk management.

Spills and Spin - Tom Bergin 2011-07-07

In April 2010, the world watched in alarm as BP's Macondo well suffered a fatal explosion and a catastrophic leak. Over the next three months, amid tense scenes of corporate and political finger-pointing, millions of barrels of crude oil dispersed across the Gulf of Mexico in what became one of the worst oil spills in history. But there is more to BP's story than this. Tom Bergin, an oil broker turned Reuters reporter, watched the 'two-pipeline company' of the early 1980s grow into a dynamic oil giant and PR machine by the turn of the twenty-first century. His unique access to key figures before, during and after the spill - including former CEO Tony Hayward - has enabled him to piece together this compelling account of a corporation in crisis, and to examine how crucial decisions made during BP's remarkable turnaround paved the way for its darkest hour.

Fatal Accident Investigation Report, Isomerization Unit Explosion Final Report, Texas City, Texas, USA - BP (Firm) 2005
Spearheaded by a BP investigative team, this report summarizes the events of the 2005 Texas City refinery explosion.

Introduction to Process Safety for Undergraduates and Engineers - CCPS (Center for Chemical Process Safety)
2016-06-27

Familiarizes the student or an engineer new to process safety with the concept of process safety management Serves as a comprehensive reference for Process Safety topics for student chemical engineers and newly graduate engineers Acts as a reference material for either a stand-alone process safety course or as supplemental materials for existing curricula Includes the evaluation of SACHE courses for application of process safety principles throughout the standard Ch.E. curricula in

addition to, or as an alternative to, adding a new specific process safety course Gives examples of process safety in design

Poisoned Legacy - Mike Wagner

2011-06-07

An exposé on British oil giant BP not only looks at the massive Deepwater Horizon explosion and oil spill but also the company's ongoing history of environmental and safety violations, in a book written by a journalist who has been covering BP for years. 100,000 first printing.

Investigation Report - U.s. Chemical Safety and Hazard Investigation Board

2014-07-14

On March 23, 2005, at 1:20 p.m., the BP Texas City Refinery suffered one of the worst industrial disasters in recent U.S. history. Explosions and fires killed 15 people and injured another 180, alarmed the community, and resulted in financial

losses exceeding \$1.5 billion. The incident occurred during the startup of an isomerization¹ (ISOM) unit when a raffinate splitter tower² was overfilled; pressure relief devices opened, resulting in a flammable liquid geyser from a blowdown stack that was not equipped with a flare. The release of flammables led to an explosion and fire. All of the fatalities occurred in or near office trailers located close to the blowdown drum. A shelter-in-place order was issued that required 43,000 people to remain indoors. Houses were damaged as far away as three-quarters of a mile from the refinery.

Macondo Well Deepwater Horizon Blowout

- National Research Council 2012-03-02

The blowout of the Macondo well on April 20, 2010, led to enormous consequences for the individuals involved in the drilling operations, and for their families. Eleven workers on the Deepwater Horizon drilling

rig lost their lives and 16 others were seriously injured. There were also enormous consequences for the companies involved in the drilling operations, to the Gulf of Mexico environment, and to the economy of the region and beyond. The flow continued for nearly 3 months before the well could be completely killed, during which time, nearly 5 million barrels of oil spilled into the gulf. Macondo Well-Deepwater Horizon Blowout examines the causes of the blowout and provides a series of recommendations, for both the oil and gas industry and government regulators, intended to reduce the likelihood and impact of any future losses of well control during offshore drilling. According to this report, companies involved in offshore drilling should take a "system safety" approach to anticipating and managing possible dangers at every level of operation -- from ensuring the integrity of wells to

designing blowout preventers that function under all foreseeable conditions-- in order to reduce the risk of another accident as catastrophic as the Deepwater Horizon explosion and oil spill. In addition, an enhanced regulatory approach should combine strong industry safety goals with mandatory oversight at critical points during drilling operations. Macondo Well-Deepwater Horizon Blowout discusses ultimate responsibility and accountability for well integrity and safety of offshore equipment, formal system safety education and training of personnel engaged in offshore drilling, and guidelines that should be established so that well designs incorporate protection against the various credible risks associated with the drilling and abandonment process. This book will be of interest to professionals in the oil and gas industry, government decision makers, environmental advocacy groups, and others

who seek an understanding of the processes involved in order to ensure safety in undertakings of this nature.

Occupational Outlook Handbook - United States. Bureau of Labor Statistics

1976

Loss prevention in the process industries - Frank P. Lees 2003

Failure to Learn - Andrew Hopkins 2014