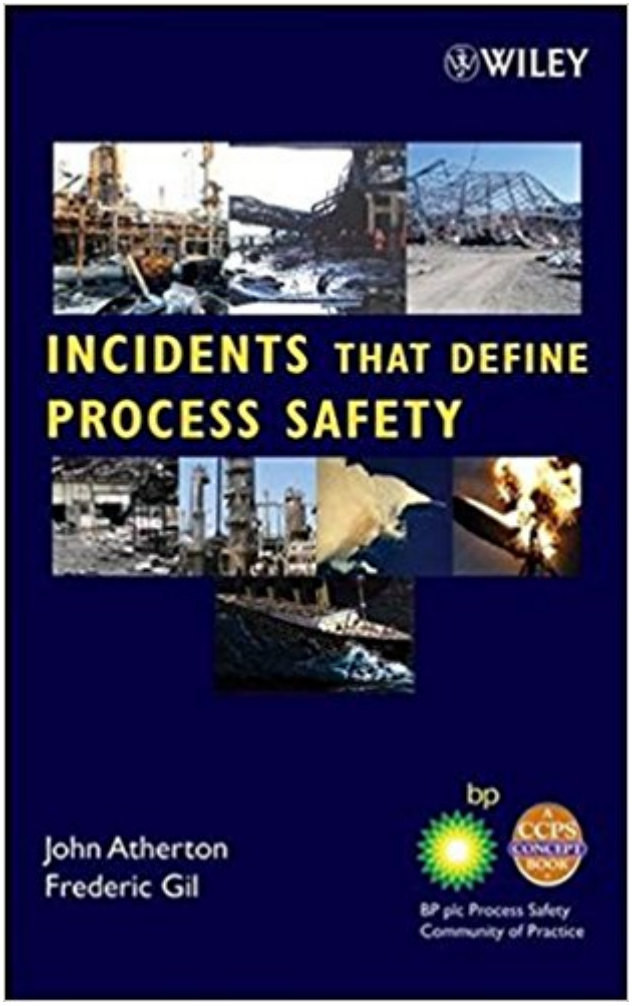
Incidents That Define Process Safety



Synopsis

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.

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Customer Reviews

"This book is an excellent contribution to the safety literature. It is thorough, wide ranging and well written. It should be read by all engineers in the process engineers, not just the safety experts." (Journal of Hazardous Materials, May 2008)

Apply lessons learned from major process and transportation incidents to improve process safety This book 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; the goal of this reference is to consolidate and archive concise information on representative incidents that are relevant today so readers can apply the resulting safety principles

to their current operations. Incidents That Define Process Safety: Is very easy too read and hard to put down Includes descriptions of U.S. incidents, such as the Exxon Valdez oil spill; the HF release at Marathon Oil Refinery in Texas City in October 1987; the explosion in an isomerization unit at BP's Texas City Refinery in March 2005; and more Covers incidents worldwide, including the Piper Alpha Oil Platform disaster in 1988, the collapse of a furnace stack and multiple fires at the Tupras oil refinery in Turkey after an earthquake, the Bhopal disaster, and more Incorporates events from other industries that have implications for the chemical industry, such as the NASA Challenger Disaster, Chernobyl, and more Includes photographs of the incident consequences and references for additional study Presented to raise process safety awareness, to help readers learn from previous incidents, and to supplement established initiatives and materials, this book is a valuable reference for engineers and technicians involved in the design and operation of chemical and petroleum processing facilities, as well as managers and decision makers in these industries. It is also an enlightening supplement to many chemical engineering courses.

I have been working in the oil refining business for 33 years. I was scheduled to be in the Texas City refinery on the day of the explosion there, but my meeting was delayed, fortunately for me. Since then, I have made it my business to document incidents and near-misses that never reach the news. This book is a godsend for me, because it classifies incidents by root cause, and because it explains process fundamentals. Many accidents, such as the Tosco Avon explosion are caused by lack of process understanding, not just by operators, but by engineers and managers.

As a Process Reliability Engineer working in a major refinery I looked forward to reading this book. I ordered it hoping that it would be an extension of British Petroleum's fact-based and well-articulated sixteen volume process safety series available through and IChemE (ISBN 0852955219). The sections that explain the sequence of events behind refinery safety incidents are excellent. They contain meaningful lessons learned about equipment operation, maintenance, and human factors that readily apply in the processing and manufacturing industry. BP displays an incredible amount of humility by allowing the public to look deep inside some of their own process safety failures. It is our responsibility to constructively use this information to avoid repeat failures in our own facilities.But what spoiled it for me is the insertion of "lessons learned" from some highly sensationalized, historic disasters. For example, the Hindenburg summary on pages 52 - 56 ties the safety message to theoretical arguments based on limited research and internet blogs instead of the sound forensic engineering practice that was used to determine a probable cause for the manufacturing industry

case histories. This sometimes distracts from an important safety message that would have otherwise stood firm on its own merit.

Not the best written book out there but it describe process safety accidents good enough to understand what went wrong.

This book goes a lot further than previous books, in that it looks at incidents outside the process industry, and explores the failings of all elements of process safety. Obviously BP is stepping up the effort to become a recognized leader in process safety (those words were written for them by someone else, weren't they?) Anyway, it's a fascinating and informative read that should arm process safety professionals for scenarios from the boardroom to the confined space.

This is a great book for mid management level people in the petrochemical industry. Not going to give any design engineers their knowledge but an excellent pick up and set down book describing most of the common causes of industrial accidents from design, operation, communication, ergonomics et all. As a reminder on how easy things can go wrong, escalate, intertwine and leave devastating aftermath. Everyone with an interest in process safety will learn something from this book. Also it is a book I believe will probably have saved quite a few accidents or escalations of accidents since it's first publication six years ago.

Tales of Incidents Grim - BB (Boring)Incidents That Define Process SafetyBy John Atherton and Frederic GilReviewed by Nick SandsMany younger employees do not remember the process plant disasters of the 1980's. John Atherton and Frederic Gil have summarized many of those events and more in Incidents the Define Process Safety, published by the Center for Chemical Process Safety. Atherton has 40 years of experience, including 25 years working for BP in process safety management. He is a chartered engineer, a member of IChemE and was awarded the Ned Franklin medal by IChemE for his contributions to process safety. Gil has worked as a fire, process safety and loss prevention engineer for 18 years.The incidents are grouped in chapters by common cause, though multiple factors contributed to all of the incidents. The first cause is blind operation where the hazards are not seen, including two plane crashes and the incident at Three Mile Island. Design has contributed to incidents as well, like the biggest process incident in history at Union Carbide in Bhopal. The Hindenburg fire is also covered with this group. External causes contributed to the fire storm at Pemex in Mexico City and fire at Tupas in Izmit, Turkey.A lack of inspection and

maintenance was a factor in the fire at Texaco in Milford Haven and the HF release at Marathon Oil in Texas City. Failure to provide adequate process knowledge is cited as a cause in the BLEVE (boiling liquid expanding vapor explosion) at Elf in Feyzin and the explosion at AZF in Toulouse. Other incidents were partially caused because process hazards were not understood, including the explosions at Esso in Longford and at BP in Grangemouth.Improper management of change is associated with two of the most famous incidents, the Chernobyl disaster and the explosion at Nypro in Flixborough. Missing the opportunities to learn from previous near misses was a factor in the destruction of the Space Shuttle Columbia. Poor operating procedure was one of the causes for the most recent incident cited, the explosion at BP in Texas City.Several disasters occurred in part due to poor practice around work permits, including the incident at Motiva in Delaware, the explosion at Phillips in Pasadena, and Piper Alpha platform fire that killed 167. Poor emergency response contributed to the consequences of the incident at ICMESA in Seveso which helped inspire the EU Seveso directive. Emergency response was also a factor in the boil over at Tacoa in Venezuela. The final group of incidents is related to human factors, including the Exxon Valdez oil spill in Alaska.Sharing the lessons of history is always of benefit. Atherton and Gil broaden the usual list with many non-process incidents. While this may be interesting in a historical sense, it leaves little room to fully discuss the process incidents that really did define process safety. The diluted discussion makes Incident that Define Process Safety a more boring book (BB) than it had to be.

fast and in time. It’s so sharp. I cut myself the first time I used it. Received as described. very useful. a gift to my brother ,

Relationship: A Candid Look at Breaking Up, Making Up, and Dating Well The Thirteen American Arguments: Enduring Debates That Inspire and Define Our Nation Black & Decker The Complete Guide to Garden Walls & Fences: *Improve Backyard Environments *Enhance Privacy & Enjoyment *Define Space & Borders (Black & Decker Complete Guide) Sailing Theory and Practice. A Scientific Analysis, with 335 Drawings and Photographs of the Aerodynamic, Hydrodynamic and Other Design Factors which Define a Yacht’s Behaviour. Pulled Over: How Police Stops Define Race and Citizenship (Chicago Series in Law and Society) The Aisles Have Eyes: How Retailers Track Your Shopping, Strip Your Privacy, and Define Your Power Drugs for Life: How Pharmaceutical Companies Define Our Health (Experimental futures) Define and Rule: Native as Political Identity (The W. E. B. Du Bois Lectures) Define "Normal"