We are Stonehouse process safety

Dear Vahid,

September 2024

Process Safety Dispatch

In this Issue

Beware of Safety: Communication in Process Safety

Why it matters a lot, and what we are doing about it!

In every aspect of life--business or personal--communication defines us. It is how we get information from our heads out into the world for others to understand. If we don't do a good job in defining our thoughts, the receiver of our information will not fully understand what we are trying to tell them. This is what happens all too often in the world of Process Safety, except the consequences of getting it wrong, multiply.

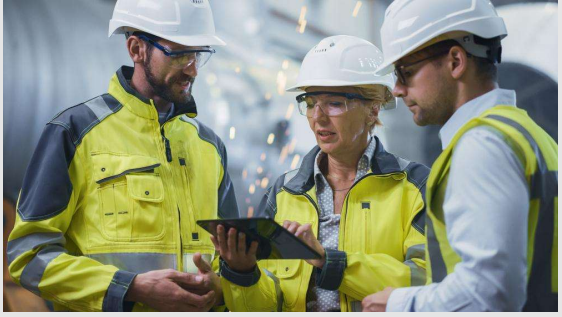
Texas City Refinery Explosion

On March 23, 2005, the BP refinery in Texas City, Texas, experienced one of the most severe refinery explosions in the U.S. history. The incident caused 15 deaths and over 180 injuries. The explosion occurred during the startup of an isomerization unit, where a distillation tower was overfilled with hydrocarbons, and a vapor cloud was ignited.

Communication Breakdown: In the Texas City refinery explosion, communication failures played a significant role in the incident's escalation and tragic outcome. The U.S. Chemical Safety Board's investigation into the event [Ref 1] revealed that there were recurring procedural deviations during startups of the unit involved, which were well known but not formally addressed or communicated in operational policies. This pattern of accepted procedural workarounds became the norm, rather than the exception, which contributed to the unsafe conditions leading up to the explosion.

Specifically, communication about the status and operation of the equipment was critically flawed. For instance, the control board operator made decisions based on incorrect instrument readings and was not adequately informed about the actual conditions within the process unit. This lack of clear, accurate communication was compounded by the absence of effective shift turnover communications, which should have included detailed logbook entries and explicit startup procedures. This failure in communication meant that crucial information regarding the operation status and safety concerns was not adequately relayed or documented, leading to unsafe operational practices.

Read More



Expert Consulting

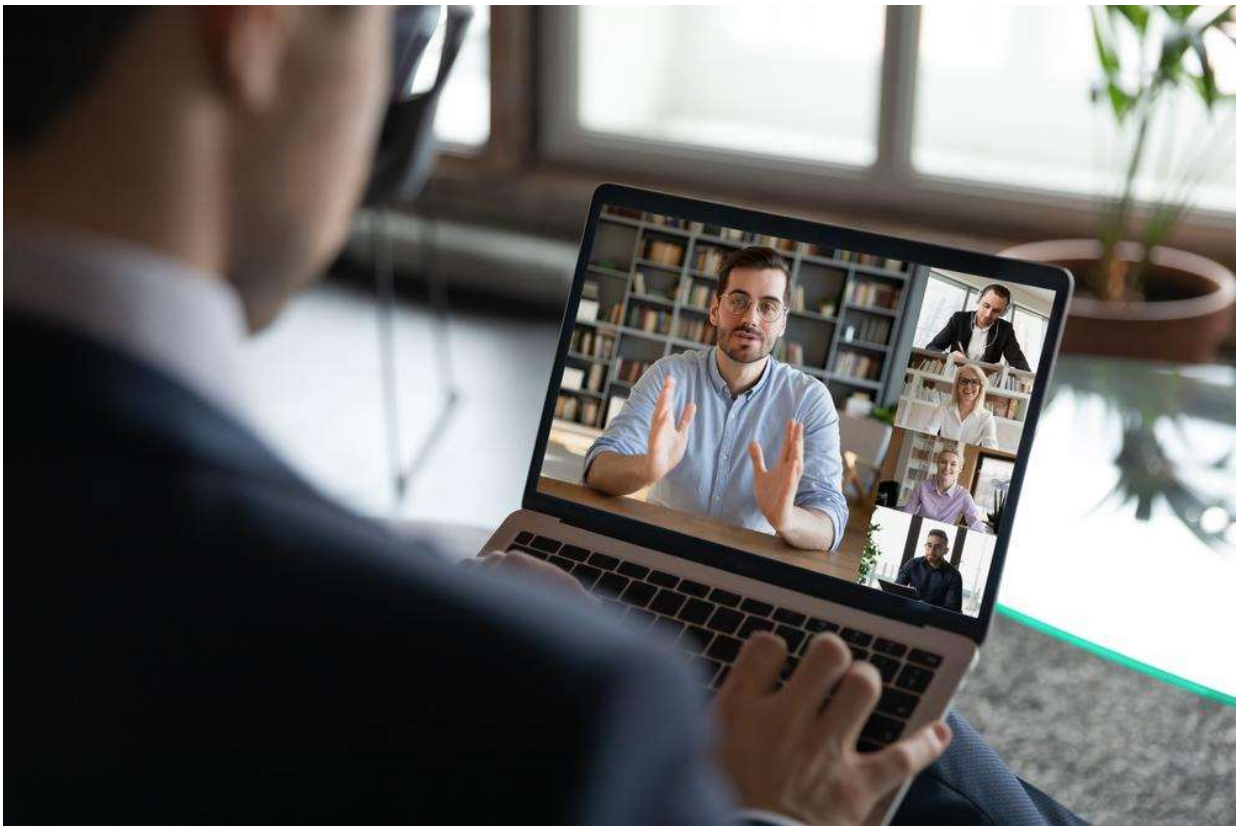
- Dust Explosion Prevention & Mitigation
- Control of Static Electricity
- Hazardous (Electrical) Area Classification
- Process Hazard Analysis
- Process Safety Management
- Fire and Explosion Hazard Assessment
- Incident Investigation
- Organizational Process Safety Competency Assessment

Specialist Laboratory Testing

- Combustible Dust Testing
- Electrostatic Testing
- Self-Heating / Thermal Instability Testing
- Flammability Testing of Gases & Vapors

Dust Clouds, Liquids & Gases, Static Electricity, Electrical Sparks, Mechanical Sparks

Explosions - Learn all about them!



Process Safety Training from Stonehouse. Virtual, broadcast live and direct to your PC in two 3-hour segments.

At Stonehouse, we've been helping hundreds of businesses with their process safety consulting and testing needs. We've built decades of cumulative knowledge, and experience - and (we believe) a unique insight into industry's process safety problems and solutions. Everything from dust explosions and static electricity through to hazardous area classification and process safety management. Now it's time to let you benefit directly from this, through a suite of live virtual training courses, complete with video footage, solution methodologies, and case studies.

We hope you can join us on-line starting in September for all our virtual and live, bite-sized training events!

Upcoming Courses

The Courses:

Process Safety Management (PSM) in Practice - September 24 & 25, 2024, 1:00pm-4:00pm EST

As a Process Safety Professional or someone who simply wants to understand Process Safety Management, here's a training course you do not want to miss! The OSHA Process Safety Management (PSM) program, under 29 CFR 1910.119, represents a pivotal framework in industrial safety. PSM is designed to prevent and mitigate major chemical accidents, ensuring the well-being of both workers and the environment. Professionals in this field recognize that thorough knowledge of PSM is paramount for legal compliance, but more importantly, it equips them with the tools and expertise to identify and mitigate potential risks in highly hazardous chemical processes.

This training is delivered in our new live, bite-sized, virtual training format. It guides you to all the answers, providing you with valuable insights into regulatory requirements, risk assessment, emergency response planning, and best practices for ensuring the safe management of chemical operations. Attending such a course will advance career prospects but most importantly it underscores commitment to creating safer, more responsible industrial environments. For more information and to register, **click here**.

Exploding Dusts - October 22 & 23, 2024, 1:00pm-4:00pm EST

You've heard it all. NFPA652, Dust Hazards Analysis, DHA, the brand new, game changing NFPA 660 even? You've even been and got a consultant in to do the necessary DHA. But do you want to know what to do next? Are you struggling to apply the DHA recommendations in a practical and cost-effective way? Or perhaps you are even wondering how you will arrange the mandatory revalidation and update of your DHA?

In this virtual training course, we are ready to guide you to all the answers. We'll give you all the basics, tell you about your dust explosion lab results, and what they mean and will lead you to the next steps in your dust fire/ explosion control journey from first-time DHA through to revalidation, including preventing explosions and all the plant protection methods available. For more information and to register, **click here**.

Explosions - October 29 & 30, 2024, 1:00pm-4:00pm EST

Gases, vapors, aerosols, fibers, dusts and more. We all know they can (and do) explode uncontrollably in industry threating life, community, and business integrity. Yet, explosions and flash fires can be prevented and controlled…. if you have the knowledge,

experience and sometimes ingenuity. Our 'Explosions' course is your key to a safer plant – and peace of mind.

This course takes you from understanding to hazards analysis, to explosion prevention and protection techniques and through to compliance with standards and guidelines. And we do this with copious doses of video and case study material built up from years of practical experiences. For more information and to register, **click here**.

Static Electricity - November 12 & 13, 2024, 1:00pm-4:00pm EST

Static electricity is a devious subject. Fear not. We have it covered in this neat course designed for those who want to understand how static sparks arise in industry – and what to do to control this most elusive of ignition sources. We walk you through from the basics of the subject to help you understand where it all starts, we enthral you with new video clips of the subject, filmed in our own labs and we lay out practical options available to control static electricity on your plant. For more information and to register, **click here**.

Hazardous Area Classification - December 10 & 11, 2024, 1:00pm-4:00pm EST

You've got flammable atmospheres at your facility. You've got electrical equipment at your facility. Better make sure the two never meet – or else make sure that if they do, the electrics cannot cause a fire or explosion. Knowing where your flammable atmospheres are (classifying hazardous areas) is a fundamental requirement of good process safety – important enough to have its own NFPA standards.

In our hazardous area classification course, we aim to have you understanding the requirements of the standards, explain good industrial practice and point you in the right direction to ensure your plant is same from the fire and explosion hazards presented by electrical equipment. For more information and to register, **click here**.

For more info & Registration

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