We are Stonehouse process safety

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Process Safety Dispatch

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Safety Feature: Are you familiar with the 2019 Edition of NFPA 652?

Stonehouse Process Safety expert consulting, laboratory testing, training, and litigation support services are well placed to help companies of all sizes in the process industries become and remain compliant with recent changes to NFPA 652 as reflected in the 2019 edition.

Key changes to the 2019 Edition of NFPA 652 include:

- A new deadline for the completion of dust hazard analysis (DHA) for existing processes and facility compartments is September 7, 2020. This aligns with industry and commodity-specific dust standards. NFPA 652 also requires that the DHA be reviewed and updated every five years.
- General requirements for managing combustible dust fire and explosion hazards have been revised.
- Provisions designate the requirements that are meant to be retroactive.

- Material has been added that helps the user evaluate the requirements for mixtures of types of combustible dust, such as a mixture containing metal dust and agricultural dust.

- Several definitions have been added from industry and commodity-specific documents that are considered fundamental to combustible dust.

- The section on Hazard Management: Mitigation and Prevention has been expanded to include requirements on equipment design and operation. (and includes air material separators (AMS), air moving devices (AMDs), duct systems, sight glasses, abort gates and dampers, bulk storage enclosures, size reduction equipment, pressure protection systems, material feeding devices, bucket elevators, enclosed conveyors, mixers and blenders, and dryers.) Requirements for fans for continuous dust control have also been added. Changes have been made to the requirements for equipment isolation to remove the exemption for small diameter ductwork. This is now consistent with the current requirements in NFPA 654.

- Material on electrostatic discharges has been modified to provide clarity to the user regarding conductive equipment, bonding and grounding, flexible connectors, particulate transport rates, grounding of personnel, flexible intermediate bulk containers (FIBCs), and rigid intermediate bulk containers (RIBCs).

- Management system requirements, such as housekeeping, personal protective equipment (PPE), and hot work are now in Chapter 8, Management Systems.

Upcoming Webinars

Combustible Dust Hazards: Assessment, Prevention and Protection Including the Requirements of NFPA 652

Thursday, October 11, 2018 11:00 a.m.–12:00 p.m. (ET)

Dust explosions occur in a wide range of industrial sectors and often lead to injury, lost production and sometime fatalities. Powders form explosible dust clouds when the particle size is small, moisture content is low, and the concentration of dust in the atmosphere falls between certain critical limits. Measures can be taken to reduce the likelihood of dust explosion occurring in your process plant and a variety of safeguarding measures are available to control explosion forces if a dust explosion does occur. It is critical to be able to answer the question, 'why is my plant safe', which introduces the concept of 'Basis of Safety'.

A primary focus of this 90-minute accredited training is the work of The National Fire Protection Association (NFPA), which has recognized the common threads through all its existing dust-hazard-related standards and sought to consolidate the best general practices for all combustible solids, irrespective of industry and powder/dust type, in the new NFPA 652: Standard on the Fundamentals of Combustible Dust. Learn more and register.

Electrostatic Hazards in Processing Industry: The Nature of the Problem and Practical Measures for its Control

Thursday, October 18, 2018 11:00 a.m.–11:30 a.m. (ET)

Many processes and operations in a chemical plant involve handling and processing of liquids and powders, most of which could under certain conditions be flammable. Flammable gas, vapor, and dust cloud atmospheres can be ignited if a sufficiently energetic ignition source is present. One potential ignition source that, in many cases could be an inherent part of the process/operation, is an electrostatic discharge. Electrostatic discharges result from the generation and accumulation of electrostatic charges. Electrostatic charge generation most commonly occurs whenever two materials, liquids and/or solids, make and then break contact with each other. The accumulation of the electrostatic charge can result in the creation of electrostatic discharges.

The 90-minute accredited training will focus on how electrostatic hazards can be systematically assessed and explains the measures that can be taken to control static and thus mitigate the risk of flash fires and explosions. Learn more and register.

Fire and Explosion Hazards: How to Identify and Control Them in your Process

Thursday, October 25, 2018 11:00 a.m.–12:00 p.m. (ET)

Many operations in the processing industry involve handling and processing of liquids and powders, most of which could under certain conditions be flammable. Flammable gas, vapor, and dust cloud atmospheres can be ignited if a sufficiently energetic ignition source is present. Ignition of a flammable atmosphere occurs if the ignition-source energy exceeds the minimum energy that is required to ignite the fuel/air mixture at the given process conditions. As one can therefore imagine, a flash-fire or explosion hazard can exist during the transfer, handling, processing, and packaging of many flammable liquids and powders. Flash fires and explosions can lead to catastrophic events involving fatalities, injuries, community impact, facility damage, and economic losses.

Therefore, safe manufacturing requires employers to take measures that avoid flash fires and explosions and also protect people and plants from their consequences. But how can you be sure you have identified all the hazards in your plant; and how can you be sure that the control measures you are taking are practical and effective? This 90-minute accredited training will address these concerns and offer solutions to these types of safety issues. Learn more and register.

---- Mark your Calendar ----

2019 Full Day Training Courses

We will provide detailed information on full day training courses in coming months.

Combustible Dust Hazards: Assessment, Prevention and Protection Including the Requirements of NFPA 652

Wednesday, March 13, 2019
Location: New Brunswick, NJ

Electrostatic Hazards in Processing Industry: The Nature of the Problem and Practical Measures for its Control

Thursday, March 14, 2019
Location: New Brunswick, NJ

Fire and Explosion Hazards: How to Identify and Control Them in Your Process

Friday, March 15, 2019
Location: New Brunswick, NJ

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