

Dust Explosion: Hazard Recognition, Assessment and Management

Course Description

This two-day course is for the practicing fire protection engineer or plant engineer who is dealing with industrial sites that handle combustible particulate solids. This course covers the chemistry and physics of dust deflagrations, the process and progress of dust explosions, and the means by which the dust explosion hazard can be managed in both prescriptive and performance-based design environment. Learn about combustible dust explosions as a severe problem recognize control and mitigation methods and control of electrical installation hazards for combustible dust areas. Several sample problems will be included as part of the course content.

Learning Objectives

Upon completion of this course, participants should be able to:

- Compare the practices know to be likely to result in industrial dust explosions with the working conditions and activities present in the workplace
- Locate and review the practices, standards and guidelines used to reduce the potential for a combustible dust explosion or reduce the severity of an explosion if one occurs
- Identify combustible dust hazards, recognize equipment related hazards, and categorize hazardous locations
- Understand how integrated dust control and housekeeping measures are combined into functional safety programs
- Identify potential adverse effects of dust explosion protection systems from venting, inerting and suppression

Pre-requisite

Participants should have a basic understand of NFPA 68, 69 and 654

Who will benefit: Experience Level- Intermediate

Fire Protection Engineers, Chemical Engineers, Mechanical Engineers, Plant Managers, Risk Managers, Facility Managers

Materials Needed

Participants should bring with them a scientific calculator, scratch paper and the current editions of NFPA 68, 69 and 654 for working the course problems.

Course Assessment

Participants will be assessed via a written test upon completion of the course. A passing score of 70% will be required to attain a Certification of Completion.

Professional Development Hours

Upon completion participants qualify for 14 PDHs or 1.4 CEUs. A Certificate of Attendance will be awarded.