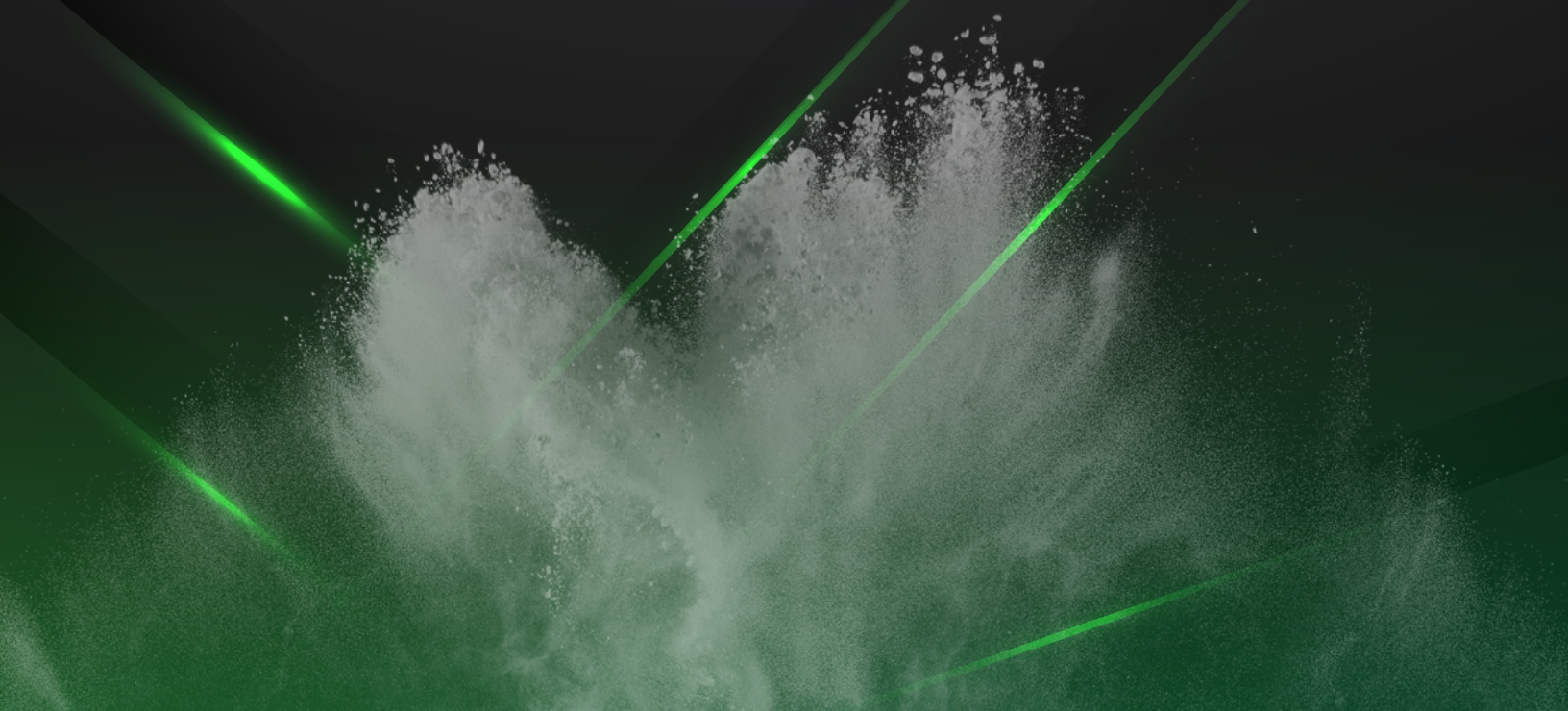


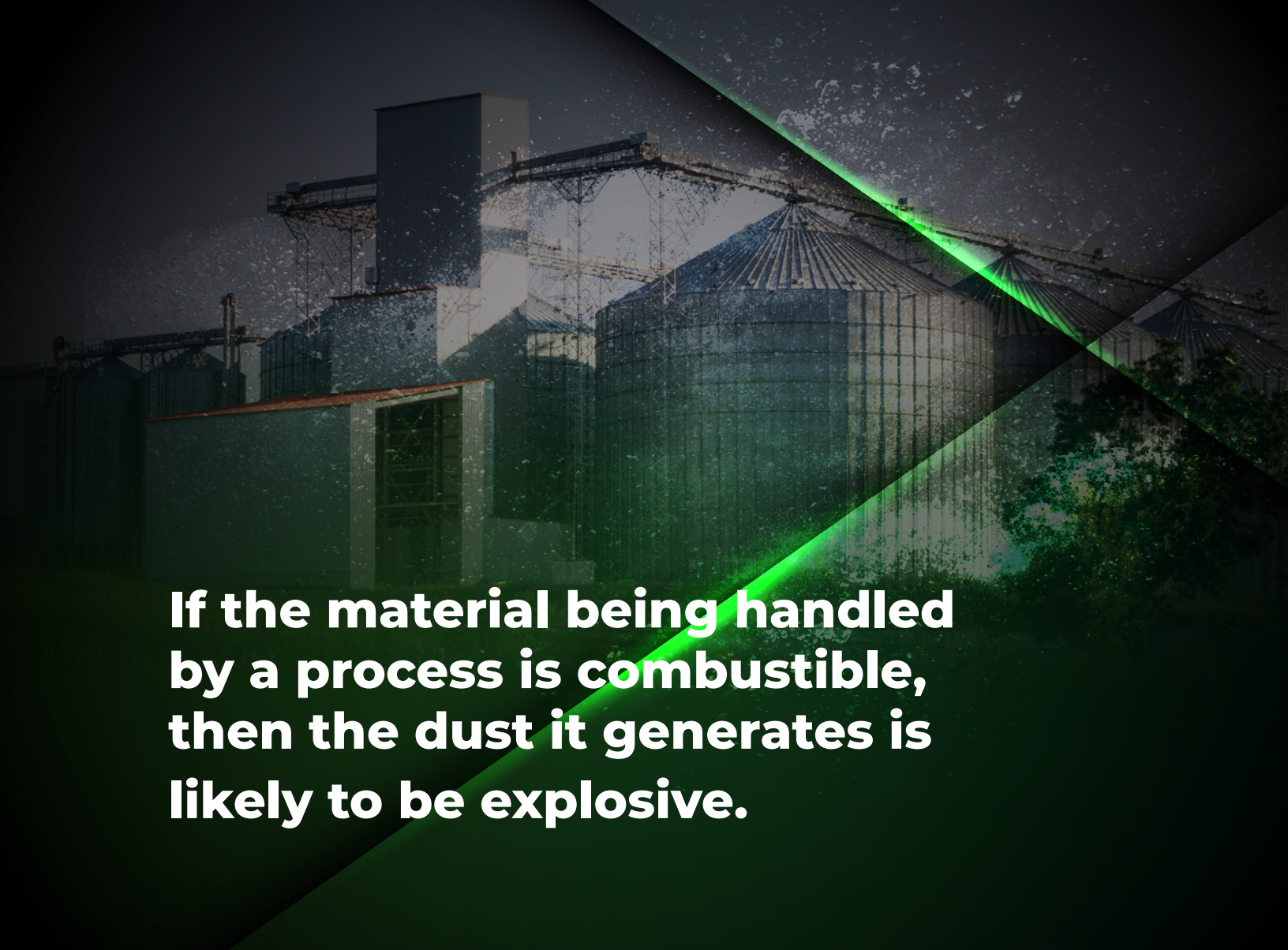


F R E E G U I D E

PREVENT

**COMBUSTIBLE
DUST EXPLOSIONS**



A photograph of an industrial facility at night, featuring large cylindrical storage tanks and a tall rectangular silo. A bright green laser beam originates from the right side of the frame and points towards the tanks. The scene is dark, with some ambient light reflecting off the surfaces of the tanks.

**If the material being handled
by a process is combustible,
then the dust it generates is
likely to be explosive.**

In addition, some materials are inherently combustible and pose serious risks at specific sizes, shapes, and compositions. Contact our team to discuss the material you manage and the process you are undertaking to rule out any risks, as we are here to provide you with consultation calls and training options. Request a dust test if the material is uncommon. Ultimately, we are here to offer you a dust hazard analysis, a more thorough method used to evaluate the materials, process, and handling of materials.

Our team of engineers are here to help you become OSHA and NFPA 652 compliant. By offering training and a dust hazard analysis, we'll be able to provide you with a written report to guide your steps. A dust hazard analysis is required by OSHA and our team can help guide you in this, and the NFPA 652 standard, which outlines steps to ensure dust is no longer a threat.

Our DHA will help you to not only become compliant with OSHA and NFPA standards, but also building codes, local safety code regulations, corporate safety standards, and insurance regulations.



OUR SERVICES

PREVENT COMBUSTIBLE
DUST EXPLOSIONS



Identifying and Preventing Combustible Dust Explosions

D U S T C O N T R A I N I N G

**OPERATOR/
CONTRACTOR
TRAINING BUNDLE**

Course Title	Duration	Course Description
Combustible Dust Basics	1 Hour	Combustible Dust Hazards pose a serious risk to an organization's assets and personnel across a variety of industries. This course will provide an introduction to what combustible dust is, the hazards that arise from the handling of combustible dust, dust explosion statistics, the regulations related to combustible dust, and the common protection schemes. Examples of combustible dust incidents will be reviewed, including the Didion Milling explosion (2017). Process Hazards, and Likely Ignition Sources by industry.
Identifying Common Hazards	1 Hour	Identifying the hazards of combustible dust on the plant floor is a powerful way to reduce the consequence of an incident or to avoid the incident in the first place. This course focuses where to look for fire and explosion hazards and what are the early warning signs to look out for before an event. Includes review of Hoeganaes explosion (2011).
Smart Housekeeping	1 Hour	Housekeeping is arguably the single most effective way to prevent a primary incident from cascading into a devastating explosion that across all areas of the facility. This course will focus on the best practices for cleaning up spills, avoiding accumulations, and how to avoid creation of dust clouds during the housekeeping activities. Includes case study of Imperial Sugar (2008).
Avoiding Ignition	1 Hour	Ignition sources are everywhere in a manufacturing facility. This course focuses on the most common ignition sources that initiate a combustible dust incident and how to control them. This course includes a Case Study of explosion at a Petfood Plant in Flagstaff AZ (2014) Process Hazards, and Likely Ignition Sources by industry.



Who Should



How



Contact Us for More Information:

info@dustconsolutions.com

call 561-626-5556

Designing Combustible Dust Protection Systems

D U S T C O N T R A I N I N G

**DESIGN
ENGINEER/OEM
TRAINING BUNDLE**

Course Title	Duration	Course Description
Combustible Dust Basics [Advanced]	2 Hours	<p>Combustible Dust Hazards pose a serious risk to an organization's assets and personnel across a variety of industries. This course will provide an introduction to what combustible dust is, dust explosion statistics, the hazards that arise from the handling of combustible dust, the regulations related to combustible dust, and the common protection schemes. Examples of combustible dust incidents will be reviewed, including the Didion Milling explosion (2017).</p> <p>Advanced: Additional time will be spent looking at Combustible Dust Test Methods, Hazard Identification, Specific</p>
How to Navigate the NFPA Standards	2 Hours	<p>Determining which of the NFPA Standards apply for your operation is not always obvious. With all the NFPA Standards (not to mention the other standards published by OSHA, FM, VDI, ATEX, etc.) that guide our industry on the safe handling of combustible dust, it can feel like a losing battle to just get started. This course will give listeners the knowledge to sort through the Standards and determine their needs. Specific attention will be paid to the requirements found in NFPA 652 and how these requirements compare to or differ from requirements in other standards.</p>
Explosion Protection Design	2 Hours	<p>There are various methods to protect a facility from the dangerous consequences of Dust Explosions. This intensive course will deep-dive into the different methods available for both the prevention and mitigation technologies available. Topics covered will include the design of Inerting Systems, Explosion Venting, Explosion Suppression, Explosion Isolation, vessel construction for Containment, and Spark Detection. Special attention will be paid to the advantages and disadvantages of each method based on industry and material type. Includes practice exercises designing protection schemes for an example specialty chemical system.</p>
Safer by Design	2 Hours	<p>Protecting your facility from the hazards of combustible dust does not always need to be expensive, nor does it always require the use of Explosion Protection Equipment. This course will focus on how using Inherently Safer Designs will reduce the risk of the consequence before any protection layers are applied. Topics include how to lay out a facility to separate fuel from ignition sources, avoiding the generation of dust clouds in processing, locating equipment wisely, and how designing for easy preventative maintenance. Includes case study on a dust explosion at Plywood Mill in Texas (2014).</p>



Who Should Attend?

- Project Engineers
- Design Engineers
- Equipment Suppliers
- Fire Protection Professional
- Risk Managers
- Safety Managers



How Courses are Offered

- On-Line
- In-Person



Contact Us for More Information:
info@dustconsolutions.com
 call 561-626-5556

D U S T C O N S O L U T I O N S

Collecting and Shipping Dust Sample for Testing



Collect representative sample(s)

- **The collection point for your dust sample will depend on what you want to learn from the dust testing.** Samples may be taken from:
 - » Dust Collector or Central Vacuum Receiver, scrapematerial directly from filters if possible
 - » Accumulations on top of equipment, rafters, ledges Raw material or Final Product Storage
 - » Scoop, pour or sweep dust into either an unbreakable plastic jar or double bagged in freezer-style zip-lock bags.
- Clearly mark the jar/bag with a Sample Name.
- Verify the weight of your dust sample is sufficient based on the required qty on the Proposal. Note the required weight of the sample may require a larger volume if it is light/fluffy.



Package the sample(s)

- **Please package the sample jar/bag into a package that may be shipped via UPS or similar means.**
- Within the package, be sure to include MSDS and a copy of the Proposal and/or Purchase Order.
- If MSDS is not available for your material, clearly mark the sample



Ship the sample(s)

- Please send samples to the address below:
 - Dustcon Solutions, Inc.**
 - 4521 PGA Blvd #116**
 - Palm Beach Gardens, FL 33418 Attn: Timothy Heneks**
- Note the tracking information for your package and supply the tracking number to **customerservice@dustconsolutions.com**