

# Important NFPA Standards for Dust Collection Systems

## General Industries

### NFPA 652

#### Standard on the Fundamentals of Combustible Dust.

Covers all facilities and processes that manage combustible dust. It requires facilities to conduct a dust hazard analysis by September 7, 2020\*. It also includes requirements for employee training and implementation of best management practices.

### NFPA 68 & 69

#### Standards on Explosion Prevention Systems.

Provides the criteria for design, installation, maintenance of explosion prevention systems, such as explosion suppression, isolation, control of combustible concentrations, and spark detect and extinguishing systems, and deflagration panels.

### NFPA 499

#### Standard that provides recommended area classifications for electrical equipment in areas where combustible dusts are produced or handled.

Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas.

### NFPA 654

#### Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids.

General standard that covers all facilities with combustible dust manufacturing and processing operations not covered by an industry standard.

\*All industries are required to conduct DHAs by September 7, 2020, except agricultural and food industries covered by NFPA 61, which have a due date of January 1, 2022.

## Individual Industries

#### Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities.

For facilities engaged in dry agricultural bulk materials including grains, oilseeds, agricultural seeds, legumes, sugar, flour, spices, feeds, dry dairy/food powders, starches, and other related materials.

#### Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities.

Covers all facilities that process wood or manufacture wood products using wood or other cellulosic fiber that produce wood chips, particles, or dust.

#### Standard for Combustible Metals.

Covers all facilities engaged in the production, processing, or handling of all metals and alloy dusts or with operations that produce combustible metal powder or dust such as machining, sawing, grinding, buffing, and polishing.

### NFPA 61

### NFPA 664

### NFPA 484

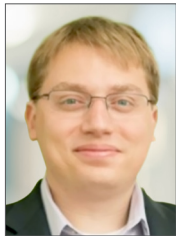
# Trinity's Combustible Dust Services

Trinity's experts provide the background and knowledge necessary to provide thorough guidance including an understanding of dust ignition sources, the likelihood of a combustible atmosphere to occur in/around certain equipment, and the most appropriate risk mitigation techniques.

- ▶ Dust Hazard Analysis facilitation
- ▶ NFPA regulatory compliance assistance
- ▶ Combustible dust testing analysis and interpretation
- ▶ Prevention and mitigation method recommendations (e.g. provide explosion venting or suppression) with vendor selection support
- ▶ Standard interpretation and applicability assistance

## Experts

**Josh Haar**  
PE, Senior Consultant



Mr. Haar has extensive experience conducting Combustible Dust Hazard Analyses. He has led DHA's for a variety of industries and clients both domestically and internationally. These included food and agricultural, plastics, wood products, aerospace, and metal equipment manufacturers. Mr. Haar also has assisted facilities

with complying with a variety of other National Fire Protection Association (NFPA) standards.

Mr. Haar can be contacted at 404.751.0244 or [jhaar@trinityconsultants.com](mailto:jhaar@trinityconsultants.com).

**Michael S. Kish**  
PE, Senior Consultant



Mr. Kish has worked extensively interpreting dust hazard testing results (Kst, MIE, MOC, Pmax, MEC, volume resistivity, etc.) for several decades in the chemical and pharmaceutical industries and conducted dust hazard analyses on various processes and processing equipment such as dust collection

systems, dryers, sifters, mills, and blenders.

Mr. Kish can be contacted at 540.746.4466 or [mkish@trinityconsultants.com](mailto:mkish@trinityconsultants.com).

**Curtis Petrosky**  
PE, CSP, Managing Consultant



Mr. Petrosky gained his combustible dust experience while working in the chemical industry at sites where solids and powders were processed and packaged. Here he led Process Hazard Analysis (PHA) Studies and performed Dust Hazard Analyses (DHA) on various processes and equipment with combustible dust. He has worked

with organic and inorganic materials and has identified methods of dust explosion prevention and mitigation for equipment retrofit and replacement.

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