



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATION STATUS CHANGE

SUMMARY

Report:	Didion Milling Company Explosion and Fire
Recommendation Number:	2017-07-I-WI-R10
Date Issued:	December 6, 2023
Recipient:	Occupational Safety and Health Administration (OSHA)
New Status:	Open – Awaiting Response or Evaluation/Approval of Response
Date of Status Change:	Not Applicable – Initial Status

Recommendation Text:

Promulgate a standard for all industries that handle combustible dust, which should be based on the requirements of current NFPA combustible dust standards, including NFPA 61, Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities, NFPA 484, Standard for Combustible Metals, NFPA 652, Standard on the Fundamentals of Combustible Dust, NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, NFPA 655, Standard for Prevention of Sulfur Fires and Explosions, NFPA 664, Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, or a successor standard. At a minimum, the standard should include the following elements:

- a. *Hazard Recognition;*
- b. *Dust Hazard Analysis;*
- c. *Management of Change;*
- d. *Incident Investigation;*
- e. *Engineering Controls;*
- f. *Building Design;*
- g. *Fugitive Dust Management;*
- h. *Operating Procedures;*
- i. *Process Safety Information;*
- j. *External Audit Management;*
- k. *Training;*
- l. *Emergency Response; and*
- m. *Personal Protective Equipment.*

[This recommendation supersedes CSB Recommendation Nos. 2006-01-H-R1 from the Combustible Dust Hazard Investigation, 2008-05-I-GA-R11 from the Imperial Sugar Investigation, and 2011-04-I-TN-R1 and 2011-04-I-TN-R2 from the Hoeganaes Corporation Flash Fires Investigation.]

Board Status Change Decision:

A. Rationale for Recommendation

On May 31, 2017, an explosion and fire occurred at the Didion Milling, Inc. (Didion) facility in Cambria, Wisconsin. The fire spread throughout the facility resulting in multiple combustible dust explosions both within and external to the production equipment.

Five employees of Didion were fatally injured as the result of the incident. An additional 14 employees were injured. Several of the fatalities and injuries were caused by exposure to the flames generated by the combustible dust explosions and flash fires, while others can be attributed to the collapse of the buildings. The incident resulted in an estimated \$15.37 million in property damage.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including ineffective combustible dust safety management, ineffective process safety leadership, and a lack of regulatory coverage for combustible dusts. As a result of these findings, the CSB issued three recommendations to the Occupational Safety and Health Administration (OSHA). This status change summary addresses CSB Recommendation No. 2017-07-I-WI-R10.