



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-R13
Date Issued:	December 6, 2023
Recipient:	National Fire Protection Association (NFPA)
New Status:	Open – Awaiting Response or Evaluation/Approval of Response
Date of Status Change:	Not Applicable – Initial Status

Recommendation Text:

Update NFPA 61, Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities, or a successor standard, to incorporate, at a minimum, the following elements:

1. *Unify the requirements for performing dust hazard analyses to remove equipment exemptions and require the assessment of all processes, such as cyclones, as required in:*
 - a. *The 2019 edition of NFPA 652, Standard on the Fundamentals of Combustible Dust.*
 - b. *Chapters 3, 5, and 6 of the CCPS's Guidelines for Combustible Dust Hazard Analysis.*
2. *Incorporate the additional guidance for Management of Change to include but not limited to:*
 - a. *Harmonize the 2019 edition of NFPA 652, Standard on the Fundamentals of Combustible Dust, requirements for section 8.12.2.4, modifications to operating and maintenance procedures, and section 8.12.2.4, employee training requirements.*
 - b. *Chapter 3 and Appendix B of the CCPS's Guidelines for the Management of Change for Process Safety, such as addressing temporary changes, operating and maintenance procedures, employee training, and dust testing results, to standardize MOC requirements across all industries that handle combustible dust.*
3. *Update the requirements for incident investigation management systems, to include but not limited to:*
 - a. *Incorporate the optional guidance of the 2019 edition of NFPA 652, Standard on the Fundamentals of Combustible Dust, as a mandatory requirement.*
 - b. *Chapters 4 and 10 of CCPS's Guidelines for Investigating Process Safety Incidents (3rd Edition).*

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 one recommendation to the National Fire Protection Association (NFPA). This status change summary addresses CSB Recommendation No. 2017-07-I-WI-R13.