



U. S. Chemical Safety and Hazard Investigation Board
RECOMMENDATION STATUS CHANGE
SUMMARY

Report:	AL Solutions Fatal Dust Explosion
Recommendation Number(s):	2011-3-I-WV-R1 2011-3-I-WV-R2 2011-3-I-WV-R3 2011-3-I-WV-R4
Date Issued:	July 16, 2014
Recipients:	AL Solutions, Inc. and AL Solutions, Inc., Burgettstown, PA facility
New Status:	R1: Closed – Unacceptable Action/No Response Received R2: Closed – Unacceptable Action/No Response Received R3: Closed – Unacceptable Action/No Response Received R4: Closed – Unacceptable Action/No Response Received
Date of Status Change:	October 26, 2020

Recommendations Text:

AL Solutions, Inc.

CSB Recommendation No. 2011-3-I-WV-R1

For all new and existing equipment and operations at AL Solutions facilities that process combustible metal dusts or powders, apply the following chapters of NFPA 484-2012, Standard for Combustible Metals:

- *Chapter 12, Titanium*
- *Chapter 13, Zirconium*
- *Chapter 15, Fire Prevention, Fire Protection, and Emergency Response*
- *Chapter 16, Combustible Metal Recycling Facilities*

CSB Recommendation No. 2011-3-I-WV-R2

Develop training materials that address combustible dust hazards and plant-specific metal dust hazards and then train all employees and contractors. Require periodic (e.g., annual) refresher training for all employees and contractors.

AL Solutions, Inc., Burgettstown, PA facility

CSB Recommendation No. 2011-3-I-WV-R3

Prohibit the use of sprinkler systems and water deluge systems in all buildings that process or store combustible metals.

CSB Recommendation No. 2011-3-I-WV-R4

Conduct a process hazard analysis as defined in NFPA 484-2012, Section 12.2.5, and submit a copy to the local fire department or the enforcing authority for the fire code.

Board Status Change Decision:

A. Rationale for Recommendation

On December 9, 2010, a metal dust explosion and fire occurred at the AL Solutions, Inc. (AL Solutions) facility in New Cumberland, West Virginia, which resulted in three employee fatalities and one contractor injury, and ultimately caused the shutdown of the plant. Pursuant to its investigation, the U.S. Chemical Safety and Hazard Investigation Board (CSB) found that AL Solutions did not follow the requirements of the prevailing national consensus standard, the National Fire Protection Association’s NFPA 484: *Standard for Combustible Metals*, in order to control combustible metal dust hazards. The CSB also found that AL Solutions did not sufficiently train employees in combustible metal dust hazards.

Following the 2010 incident, AL Solutions constructed a new manufacturing facility in Burgettstown, Pennsylvania. The CSB issued two recommendations to AL Solutions, as well as two recommendations specifically to the Burgettstown, Pennsylvania facility in order to prevent a similar incident at the new facility.

B. Response to the Recommendation

While AL Solutions stated that they implemented the recommendations, they were not responsive to multiple requests over the course of five years to provide documentation demonstrating the actions that were taken.

As a courtesy to AL Solutions, the CSB gave them 90 days from the date of the Board Vote on the status change to “Open-Unacceptable Response/No Response Received,” which occurred on December 13, 2019, to provide the requested information. AL Solutions was still unresponsive following that notification. They were made well aware that if they continued to be unresponsive, the Board would close these recommendations as “unacceptable.”

C. Board Analysis and Decision

As a result of the information above the Board voted to change the status of CSB Recommendation Nos. 2011-3-I-WV-R1 through R4 to: “Closed-Unacceptable Action/No Response Received.”