



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE

SUMMARY

Report:	US Ink Fire
Recommendation Number(s):	2013-1-I-NJ-R3 & 2013-1-I-NJ-R4
Date Issued:	January 15, 2015
Recipient:	New Jersey Department of Community Affairs
New Status:	Open – Acceptable Response or Alternate Response
Date of Status Change:	December 29, 2015

Recommendation Text(s):

CSB Recommendation No. 2013-1-I-NJ-R3

Revise the exemption for “manufacturing, production, and process equipment” under the New Jersey Uniform Construction Code (N.J.A.C 5:23-2.2) to require that equipment involved in processing, handling, or conveying combustible dust comply with the design and operating requirements of the current edition of the International Building Code.

CSB Recommendation No. 2013-1-I-NJ-R4

Develop and implement training for local code officials on the National Fire Protection Association (NFPA) standards referenced in the New Jersey adoption of the International Building Code (IBC) for occupancies with a high hazard classification (Group H); specifically, include training on equipment that handles combustible dust and the hazards involved.

Board Status Change Decision:

A. Rationale for Recommendation

On October 9, 2012, a flash fire caused burn injuries to seven workers, including three who sustained third-degree burns, at the US Ink/Sun Chemical Corporation ink manufacturing facility in East Rutherford, New Jersey. The U.S. Chemical Safety Board's (CSB) investigation into this incident found that a flammable mixture consisting of hydrocarbons and combustible dusts accumulated in the ductwork during the start up of US Ink's new dust collection system which spontaneously ignited leading to a flash fire.

The CSB investigation determined that improper design and operation of the dust collection system was one of the root causes that led to the incident. Minimum design criteria set by nationally recognized industry standards by the National Fire Protection Association (NFPA) had not been followed when designing the new dust collection system as US Ink/Sun Chemical Corporation was not required to follow these industry standards by either a federal or state regulation. The CSB investigation found that the New Jersey Uniform Construction Code (UCC) exempts certain process equipment that could apply these provisions, including the dust collection system involved in the incident. The investigation also found that the New Jersey Department of Community Affairs (DCA) conducts training for local building code officials does not provide training on relevant NFPA standards that address combustible dust hazards. As a result, the CSB made recommendations to DCA to revise the exemption for manufacturing, production and process equipment to require that equipment involved in the handling of combustible dust comply with the current edition of the International Building Code (IBC), as well as develop and implement training on combustible dust for code officials. The CSB made three recommendations to the DCA as a

result of the US Ink Fire investigation¹, however; this status change summary pertains only to Recommendations Nos. 2013-1-I-NJ-R3 and 2013-1-I-NJ-R4.

B. Response to the Recommendation

With regards to **Recommendation No. 2013-1-I-NJ-R3**, DCA plans to propose an amendment the definition of process equipment to make it clear that dust collection systems should not be considered process equipment, and therefore would be regulated under the New Jersey Uniform Construction Code (UCC). As the International Building Code (IBC) is adopted by reference, regulated equipment would need to comply with the latest version of the IBC.

With regards to **Recommendation No. 2013-1-I-NJ-R4**, DCA issued a request for proposals (RFP) in August 2015 for training that should be offered in the Spring and Fall of 2016. Training on the code requirements for dust collection systems was included as part of the RFP. The combustible dust training will be offered as part of the training program for code officials and is expected to continue beyond 2016.

C. Board Analysis and Decision

Based on the above actions, the Board voted to change the status of CSB Recommendation Nos. **2013-1-I-NJ-R3 and 2013-1-I-NJ-R4** to “**Open – Acceptable Response or Alternate Response.**”

¹ 2013-1-I-NJ-R3, 2013-1-I-NJ-R4 & 2013-1-I-NJ-R5