



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

Report:	US Ink Fire
Recommendation Number(s):	2013-1-I-NJ-R3
Date Issued:	January 15, 2015
Recipient:	New Jersey Department of Community Affairs
New Status:	Closed – Acceptable Action
Date of Status Change:	April 26, 2022

Recommendation Text:

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.

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 and Hazard Investigation Board's (CSB) investigation into this incident found that, during the start-up of US Ink's new dust collection system, a flammable mixture consisting of hydrocarbons and combustible dusts accumulated in the ductwork and ignited, causing a flash fire.

The CSB investigation determined that improper design and operation of the dust collection system was one of the causal factors 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. As a result, the CSB issued three recommendations to the New Jersey Department of Community Affairs (NJ DCA). One of which was 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). This status change summary addresses CSB Recommendation No. 2013-1-I-NJ-R3.

B. Response to the Recommendation

In several communications with the CSB, the NJ DCA stated that they would revise the UCC as the recommendation required and provided draft language for comment. In the February 21, 2017, publication of the New Jersey Register (NJR), the Division of Codes and Standards proposed an amendment to the UCC, N.J.A.C. 5:23-2.2, to explicitly state that equipment, process, or operations that involve dust explosion hazards are not considered manufacturing, production, or process equipment and are thus regulated by the UCC (49 NJR 306(a)). This amendment was adopted on January 16, 2018 (50 NJR 303(a)) and has been enforced since that time.

C. Board Analysis and Decision

Based upon the information above it is clear that the NJ DCA met the requirements of the CSB recommendation and the Board voted to change the status of CSB Recommendation No. 2013-1-I-NJ-R3 to “Closed – Acceptable Action.”