



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

MReport:	US Ink Fire
Recommendation Number(s):	2013-1-I-NJ-R7
Date Issued:	January 15, 2015
Recipient:	US Ink/Sun Chemical Corporation
New Status:	Closed – Acceptable Action
Date of Status Change:	March 24, 2017

Recommendation Text:

Revise the Capital Appropriations/Asset Request (CAR) form procedure for new installations and modifications to existing equipment to require at a minimum the following:

- *Process hazard analysis (PHA)*
- *Management of change (MOC)*
- *Review of engineering drawings for permits*
- *Safety management of contractors*
- *Training of plant operators based on applicable dust collection system guidelines and standards, including NFPA 91 and NFPA 654.*

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 (Sun Chemical) ink manufacturing facility in East Rutherford, New Jersey. The U.S. Chemical Safety Board's (CSB) investigation into this incident found that during the start-up of Sun Chemical's new dust collection system, a flammable mixture consisting of hydrocarbons and combustible dusts accumulated in the ductwork and ignited causing a flash fire.

Before designing a new dust collection system, the engineering team filed a Capital Appropriations/Asset Request (CAR). In the CAR environmental health and safety section a checkbox indicating the need for a process hazard analysis (PHA) or management of change (MOC) was not checked to require that a PHA or an MOC was necessary for the dust collection system. During interviews with company engineers and senior management, CSB investigators learned that the engineering team considered installation of the dust collection system as a replacement 'in kind' for the previous wet scrubber system. However, the new dust collection system was completely different from the wet scrubber system, including different functions and design specifications. The CSB determined that Sun Chemical management provided inadequate oversight of the capital project and recommended that it make several adjustments to its CAR program, including the requirement for an MOC, PHA, review of engineering permits, contractor safety management, and training.

B. Response to the Recommendation

Sun Chemical now requires that all CARs complete an MOC, a hazard review checklist, and where applicable (such as with the introduction of flammable or combustible materials), the completion of a PHA. During the CAR, Sun Chemical also requires the review of project engineering drawings and the certification of employees that they have been trained on the new processes. Finally, Sun Chemical developed a contractor safety management program that requires the contractor to provide Sun Chemical with information relating to its safety programs and allows Sun Chemical to audit and oversee the contractor safety management program. In completing these actions, Sun Chemical improved its CAR program to ameliorate the safety and oversight gaps identified in the CSB investigation.

C. Board Analysis and Decision

Based on the above actions, the Board voted to change the status of CSB Recommendation No. **2013-1-I-NJ-R7** to "**Closed – Acceptable Action.**"