



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

<b>Report:</b>	Optima Belle LLC Explosion and Fire
<b>Recommendation Number:</b>	2021-02-I-WV-R12
<b>Date Issued:</b>	July 6, 2023
<b>Recipient:</b>	Occupational Safety and Health Administration (OSHA)
<b>New Status:</b>	Open – Awaiting Response or Evaluation/Approval of Response
<b>Date of Status Change:</b>	Not Applicable – Initial Status

### Recommendation Text:

*Following the implementation of CSB recommendation 2021-02-I-WV-R11, ensure that the chemical industry is aware of the Chemical Reactivity Hazards website (<https://www.osha.gov/chemical-reactivity>) by developing and implementing a comprehensive outreach plan that actively targets the chemical industry and related trade associations. The outreach plan may include such means as a national news release and OSHA's "QuickTakes" newsletter and/or Safety and Health Information Bulletins. This outreach plan should be coordinated with OSHA's On-Site Consultation Program partners.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

On December 8, 2020, a metal rotary cone double dryer containing a chlorinated isocyanurate compound (trade name CDB-56®) exploded following a decomposition reaction that resulted in a fire and toxic chlorine release at the Optima Belle LLC (Optima Belle) facility in Belle, West Virginia. The explosion occurred while Optima Belle, a toll manufacturer, was dehydrating CDB-56® on behalf of Clearon Corporation through a contractual agreement with Richman Chemical Inc.

One Optima Belle employee was fatally injured in the explosion, two others were evaluated for respiratory irritation, and one member of the public reported a minor leg injury. Debris from the explosion was found almost a half-mile from the incident. Local authorities issued a shelter-in-place order for a two-mile radius for over four hours. The facility experienced an estimated \$33.1 million in property damage.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including ineffective process knowledge management, a lack of thermal hazard assessment, ineffective selection of process equipment, shortcomings in industry practices related to tolling hazardous materials, and a lack of regulatory coverage of reactive hazards under the Occupational Safety and Health Administration's (OSHA's) Process Safety Management standard (PSM) and the Environmental Protection Agency's (EPA's) Risk Management Program rule (RMP). As a result of these findings, the CSB issued three

recommendations to the Occupational Safety and Health Administration (OSHA). This status change summary addresses **CSB Recommendation No. 2021-02-I-WV-R12**.