



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATION STATUS CHANGE

SUMMARY

Report:	Bio-Lab Lake Charles Chemical Fire and Release
Recommendation Number:	2020-05-I-LA-R3
Date Issued:	April 24, 2023
Recipient:	Bio-Lab Lake Charles
New Status:	Open – Acceptable Response or Alternate Response
Date of Status Change:	December 4, 2025

Recommendation Text:

Perform process hazard analyses (PHAs) on all buildings and units processing or storing trichloroisocyanuric acid. Ensure that the PHAs are revalidated at least every five years. Also include the building design basis as process safety information for the PHA team to reference during their analysis.

Board Status Change Decision:

A. Rationale for Recommendation

On August 27, 2020, extreme winds from Category 4 Hurricane Laura caused severe damage to multiple buildings and structures storing trichloroisocyanuric acid (TCCA) at the Bio-Lab, Inc. Lake Charles (Bio-Lab) facility in Westlake, Louisiana. Once the buildings at the Bio-Lab facility were damaged, rainwater made contact with the TCCA stored inside and initiated a chemical reaction and the subsequent decomposition of the TCCA. The resulting heat initiated a fire, and the decomposition reaction released a large plume of hazardous gases, including toxic chlorine.

The plume was seen over a large portion of the nearby community. As a result, the Calcasieu Parish Office of Homeland Security and Emergency Preparedness issued a shelter-in-place order. Additionally, a portion of the nearby Interstate 10 was closed for over 28 hours. Fortunately, there were no injuries reported from this incident. The Bio-Lab facility resumed production operations in March of 2023 following an approximately \$250 million redesign and reconstruction effort.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including ineffective preparation for extreme weather, process hazard analysis implementation, and emergency planning, preparedness, and response, as well as the lack of adherence to applicable hazardous materials codes. As a result of these findings, the CSB issued four recommendations to Bio-Lab Lake Charles. This status change summary addresses CSB Recommendation No. 2020-05-I-LA-R3.

B. Response to the Recommendation

Bio-Lab has notified the CSB that they have completed PHAs for some of their processes since the incident. Bio-Lab conducted and provided supporting documentation of PHAs conducted during 2021 and 2022 addressing the operations conducted within Plant 2, Plant 4, and Plant 6. Bio-Lab also provided its PHA standard operating procedure which specifies a five year revalidation cycle for PHAs as required by the recommendation. Bio-Lab has scheduled additional PHA activities for the Lake Charles manufacturing plant to commence during 2025. Once these activities are completed and documentation is submitted, the CSB can evaluate this recommendation for closure.

C. Board Analysis and Decision

Based upon the information above, the Board voted to change CSB Recommendation Nos. 2020-05-I-LA-R3 to: “Open – Acceptable Response or Alternate Response.”