



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

Report:	LyondellBasell La Porte Fatal Chemical Release
Recommendation Number:	2021-05-I-TX-R1
Date Issued:	May 25, 2023
Recipient:	LyondellBasell Industries
New Status:	Open – Acceptable Response or Alternate Response
Date of Status Change:	November 24, 2023

Recommendation Text:

Update LyondellBasell policy documents to require that procedures are developed for properly removing actuating equipment from plug valves. Require that the procedures clearly identify which non-pressure-retaining components are safe to remove and pressure-retaining components that shall not be removed, as well as ensure LyondellBasell personnel are trained on these procedures, as required by 29 C.F.R. 1910.147. Require in the policy document that risk assessments for process safety are conducted before the actuating equipment removal work is authorized. Ensure that sufficient procedures and safeguards are in place to prevent worker exposure to process fluid.

Board Status Change Decision:

A. Rationale for Recommendation

On July 27, 2021, three contract workers at the LyondellBasell La Porte Complex in La Porte, Texas, were removing an actuator from a plug valve in the site's acetic acid unit. While attempting to remove the actuator, the pressure retaining components of the valve were inadvertently removed causing the eventual ejection of the plug from the valve body and a release of acetic acid.

Approximately 164,000 pounds of acetic acid mixture was released from the unit. All three contract workers were sprayed with the acetic acid mixture fatally injuring two of the workers and seriously injuring the third. An additional twenty-nine personnel were transported to offsite medical facilities for evaluation and treatment.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including a lack of procedures, hazard awareness, and training, as well as the potential for improvement related to plug valve design. As a result of these findings, the CSB issued two recommendations to LyondellBasell. This status change summary addresses CSB Recommendation No. 2021-05-I-TX-R1 (R1).

B. Response to the Recommendation

LyondellBasell notified the CSB that the company is updating company standards to address the recommendation, including new requirements that will govern the removal of actuators from plug valves that contain process chemicals. Additionally, LyondellBasell provided the CSB with an estimate of how long it would take to complete the process.

C. Board Analysis and Decision

Based upon the information above, the Board voted to change CSB Recommendation No. 2021-05-I-TX-R1 to: “Open – Acceptable Response or Alternate Response.”