



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

Report:	Wacker Polysilicon Chemical Release
Recommendation Number:	2021-01-I-TN-R6
Date Issued:	June 15, 2023
Recipient:	Wacker Polysilicon
New Status:	Open – Acceptable Response or Alternate Response
Date of Status Change:	October 31, 2023

Recommendation Text:

Develop Install additional means of egress for the T230 desorption tower platforms and other multi-floor equipment structures on-site. After completing these installations, ensure workers are made aware of exit locations from the structure platforms through training, drills, or other techniques as appropriate.

Board Status Change Decision:

A. Rationale for Recommendation

On November 13, 2020, a graphite heat exchanger cracked during maintenance activities, releasing anhydrous hydrogen chloride at the Wacker Polysilicon facility in Charleston, Tennessee. The incident occurred on the fifth floor of an equipment access structure when a contractor applied excessive torque to flange bolts on the heat exchanger's discharge pipe.

Seven workers from two contracted companies were in close proximity to the release. The location of the release prevented the workers from accessing the platform's single means of egress. While attempting to escape by climbing down piping on the side of the structure, three of the workers fell to the ground, fatally injuring one and seriously injuring the other two. The other four workers remained in place until the release ended. One of these four workers sustained chemical burns from the release due to a rip in their personal protective equipment (PPE). The remaining three workers were uninjured.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated the incident and found several safety issues including ineffective written procedures, control of hazardous energy, and management of hazards during simultaneous operations (SIMOPs), as well as an insufficient means of egress from the platform. As a result of these findings, the CSB issued four recommendations to Wacker Polysilicon. This status change summary addresses CSB Recommendation No. 2021-01-I-TN-R6.

B. Response to the Recommendation

Wacker Polysilicon notified the CSB that the company has substantially implemented the recommendation and has provided documentation of the actions the company has completed

specific to T230 desorption tower platforms. The CSB has requested additional information from Wacker Polysilicon regarding the other multi-floor equipment structures on-site which is necessary to evaluate the recommendation for closure.

C. Board Analysis and Decision

Based upon the information above, the Board voted to change CSB Recommendation No. 2021-01-I-TN-R6 to: “Open – Acceptable Response or Alternate Response.”