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

Report:	Wacker Polysilicon Chemical Release
Recommendation Number:	2021-01-I-TN-R1
Date Issued:	June 15, 2023
Recipient:	Occupational Safety & Health Administration
New Status:	Open – Awaiting Response or Evaluation/Approval of Response
Date of Status Change:	Not Applicable – Initial Status

Recommendation Text:

Promulgate a standard or modify existing standards to require employers to ensure the coordination of simultaneous operations (SIMOPs) involving multiple work groups, including contractors. Ensure that the requirements of this standard or standards apply to both general industry and construction activities and are not limited to activities occurring within confined spaces. Include in the standard requirements for Employers to ensure that the following activities occur:

a. Identification of potential SIMOPs;

b. Identification of potential hazardous interactions;

c. Evaluation and implementation of necessary safeguards to allow for safe SIMOPs;

d. Coordination, including shared communication methods, between the SIMOPs; and

e. Inclusion of emergency response personnel or services in the planning and coordination of the SIMOPs.

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 toque 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 two recommendations to the Occupational Safety & Health Administration. This status change summary addresses **CSB Recommendation No. 2021-01-I-TN-R1**.