

Simultaneous Operations (SIMOPS)

August 2023



▲ Workers fell from this platform during a release of toxic hydrogen chloride (HCl) gas. Read the U.S. Chemical Safety and Hazard Investigation (CSB) report No. 2021-01-I-TN for more detail.

One worker was killed and two others were seriously injured when they fell from a fifth-floor platform. They were trying to climb down some piping to escape a toxic hydrogen chloride (HCl) gas release. Several lessons can be learned from the incident, but this Beacon focuses on just one: simultaneous operations, sometimes called SIMOPS.

All of the injured workers belonged to a crew of insulators who were on the platform at the same time as a crew of pipefitters who were torquing bolts nearby. The pipefitters were appropriately protected against an HCl release, wearing acid suits with full-face respiratory protection. The permit issuer for the insulation job did not adjust the personal protective equipment (PPE) requirements, so the insulation crew had only escape respirators and flame-resistant (FR) clothing.

Did You Know?

- SIMOPS refers to activities being done by multiple groups (*e.g.*, operations, contractors, maintenance, or others) in the same area at the same time.
- Some operations — like offshore platforms — need to consider SIMOPS more often.
- The most likely time for SIMOPS to occur for most process units is during a turnaround — like in this incident.
- When issuing multiple permits in the same area, there are more possible hazards to consider.
- The best way to avoid SIMOPS issues is to adjust the schedule to avoid multiple operations in the same area.
- When SIMOPS can't be avoided, permit issuers should consider the possible interactions between the activities and various work crews.

What Can You Do?

- Permits should be coordinated to avoid potentially conflicting actions in the same area at the same time, like draining of flammables and welding.
- SIMOPS can also refer to operations such as starting up after a turnaround. Consider pausing work permits until the unit is running smoothly.
- One way to recognize and manage SIMOPS is to group active permits for the same area in one place to increase awareness of SIMOPS.
- Even if work in the same area is not conflicting, simultaneous work may require a more detailed hazard review considering PPE, egress, or other unique issues.
- When doing any work on process equipment or piping, consider the possibility that containment could be lost.
- See the March 2022 Beacon for another incident involving multiple contractors (www.aiche.org/ccps/resources/process-safety-beacon/archives/2022/march/english).

Consider how simultaneous jobs could affect each other.