

Simultaneous Operations (SIMOPS)

August 2023



Figure 1. The platform where the release occurred. Fifteen seconds later, the structure was engulfed by the cloud. (Ref CSB report No. 2021-01-I-TN)

There was one fatality and two other workers seriously injured when they fell from a 5th floor platform. They were trying to climb down some piping to escape during a toxic hydrogen chloride (HCl) gas release. (See Figure 1.). There are several lessons from this incident. This Beacon focuses on just one: Simultaneous Operations, sometimes called SIMOPS.

All 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 by acid suits with full-face respiratory protection. The permit issuer for the insulation job did not adjust the PPE requirements, so they only had escape respirators and wore flame resistant (FR) clothing.

Did You Know?

- Simultaneous operations refers to activities being done by multiple groups such as operations, contractors, maintenance or others, in the same area at the same time.
- Some operations – like offshore platforms – need to consider simultaneous operations more often.
- The most likely time for simultaneous operations to occur for most process units are associated with turnarounds – like in this incident.
- When issuing multiple permits in the same area, there are more possible hazards to consider.
- The best way to avoid simultaneous operations 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 between the various work crews.

What Can You Do?

- Permits should be coordinated so potentially conflicting actions like draining of flammables and welding aren't done in the same area at the same time.
- Simultaneous operations 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 simultaneous operations is to group active permits for the same area in one place to increase awareness of simultaneous operations.
- 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.
<https://www.aiche.org/ccps/resources/process-safety-beacon/archives/2022/march/english>

Consider how simultaneous jobs could affect each other