

## LEARNING FROM INCIDENTS 25-03: Lethal Incident after entering a tank

A tragic incident occurred when a helmsman looked into a tank to check for cleanliness during cleaning work. The tank contained nitrogen, creating a dangerous, oxygen-deficient atmosphere. The Helmsman was only wearing a filter mask when he put his head inside the tank. Subsequently he collapsed into the tank due to the lack of oxygen and could not be recovered, despite rapid rescue efforts.

This incident shows how quickly things can go wrong when not thoroughly considering the risks and complying to enclosed space procedures. It serves as a powerful reminder for all crew members to always work safely, follow the rules, and never take shortcuts—no matter how urgent a task may seem.

### What happened?

During cleaning activities, a helmsman feared that the tank would not be free of residues after cleaning. He wanted to quickly check on the issue and bent over with his head inside the tank—without following the proper enclosed space entry procedures. He wore a basic filter mask, but the tank contained nitrogen, creating an oxygen-deficient atmosphere. Nitrogen immediately replaces the oxygen within the blood when inhaled and leads to imminent unconsciousness.

A crewmember who had briefly stepped away returned to find the helmsman collapsed inside the tank. He was unresponsive. The crewmember raised the alarm and, with help, entered the tank using breathing apparatus and rescue equipment. Despite resuscitation attempts on deck and assistance from emergency responders, the helmsman passed away.

### How could this happen?

The helmsman likely felt he needed to act quickly and fix the problem without delay. He underestimated the danger of simply lowering his head in an enclosed space without proper protection or atmosphere testing.

He used a filter mask, which **does not protect against oxygen deficiency or toxic gases**. He did not inform the captain or crew, so no proper rescue team or precautions were in place. Rescue equipment was nearby, but not prepared and ready at the tank entrance.

### Lessons learned

- Only enter tanks with skipper's permission and under strict control in full compliance with your ESE-procedure. Crew must be informed, equipped, and ready. The tank atmosphere **MUST** be measured!
- Never enter an enclosed space without following procedures, not even only with your head. These rules exist to save lives.
- Always perform a Last Minute Risk Assessment (LMRA). Think: what are the risks here, today?
- A filter mask is not sufficient in low oxygen or toxic atmospheres. You need proper breathing apparatus.
- Always prepare for rescue before entry in line with your ESE-Procedure. Rescue teams and equipment must be at the entrance, ready to act.
- No task is worth your life. Don't take shortcuts, even if it seems like "just a quick fix."



### Sources

This LFI is based on an incident that happened on a seagoing vessel.