

# Confined Space Entry



**SAFETY MOMENT**

**Disclaimer:** this safety moment is designed to prevent similar incidents occurring. All guidance herein is provided in good faith and Step Change in Safety nor its member companies accept responsibility for any inaccuracies or omissions contained within this safety moment.

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# About this Safety Moment

- This Safety Moment is intended to highlight how the IOGP Life Saving Rules and Step Change in Safety 7 Cs of safety can be applied to keep people safe when working in confined spaces.
- It is based on the Accident Investigation Board (AIBN) safety investigation of a fatality on board the chemical tanker Solstraum on the 4<sup>th</sup> of February 2011.
- Click here for the [AIBN Investigation Report](#)
- This incident involved a certified and experienced worker who was familiar with the worksite.



# The task

- You are onboard a cargo tanker transporting a hazardous product.
- Your task is to take samples of the cargo fluid by lowering a sampling tube into the tank attached to a steel tape
- What could go wrong?

**DISCUSS**



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# The Snag

- The sampling tube (left) snagged on the heating coils (right) at the bottom of the tank.
- Attempts were made to retrieve the sampling tube, but they were unsuccessful.



# Safe System of Work

The cargo was offloaded & nitrogen blanket applied...  
A number of steps had to be taken to clean the tanks and make them safe. These steps included:

- Pre & Post wash flushing
- Cold & hot water washes
- Smell test & gas test
- Ventilation
- Permit & Escape Plan
- Escape Equipment & Standby Man
- Mopping & Drying





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**After the cold wash was complete, the pumpman put the fan on for 5 minutes, asked his colleague to stand watch, then entered the tank...**

**DISCUSS**



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# The confined space

- The pumpman, wearing a filter mask, climbed down into the tank and subsequently collapsed.
- His colleague raised the alarm, the emergency response team lifted him from the space within 15minutes.
- Despite efforts to save his life, he was later declared dead.
- The atmosphere within the space was found to be oxygen deficient ( $>7\% \text{ O}_2$ )





# Life Saving Rules



## Bypassing Safety Controls

Obtain authorisation before overriding or disabling safety controls



- I understand and use safety-critical equipment and procedures which apply to my task
- I obtain authorisation before:
  - disabling or overriding safety equipment
  - deviating from procedures
  - crossing a barrier

## Confined Space

Obtain authorisation before entering a confined space



- I confirm energy sources are isolated
- I confirm the atmosphere has been tested and is monitored
- I check and use my breathing apparatus when required
- I confirm there is an attendant standing by
- I confirm a rescue plan is in place
- I obtain authorisation to enter

## Work Authorisation

Work with a valid permit when required



- I have confirmed if a permit is required
- I am authorised to perform the work
- I understand the permit
- I have confirmed that hazards are controlled and it is safe to start
- I stop and reassess if conditions change

**Which parts of these Life Saving Rules could have prevented this?**

**DISCUSS**

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# The Step Change in Safety 7 Cs

Which of the 7C's played a part in this incident?

**DISCUSS**

## 7. CULTURE

Do **YOU** feel pressure to maintain production or avoid taking equipment offline?

## 1. CHANGE MANAGEMENT

How do **YOU** recognise change has occurred in **YOUR** job?

## 6. COMMITMENT

How are **YOU** playing **YOUR** part in making **YOUR** worksite safer?

# 7Cs

## 2. COMMUNICATION

Are **YOU** sure safety critical communication is mutually understood and acted upon?

## 5. COMPLACENCY

What is the worst thing that could happen today? What would **YOU** do?

## 3. CONTROL OF WORK

Is **YOUR** work adequately controlled from a safety perspective?

## 4. COMPETENCY

Do **YOU** feel competent to do the job **YOU** are asked to do?

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# Play your part



Did this presentation result in discussion that could lead to creating another alert to share with industry? Please contact : [info@stepchangeinsafety.net](mailto:info@stepchangeinsafety.net)

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