# Confined Space Entry







## 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 <u>AIBN Investigation Report</u>
- This incident involved a certified and experienced worker who was familiar with the worksite.





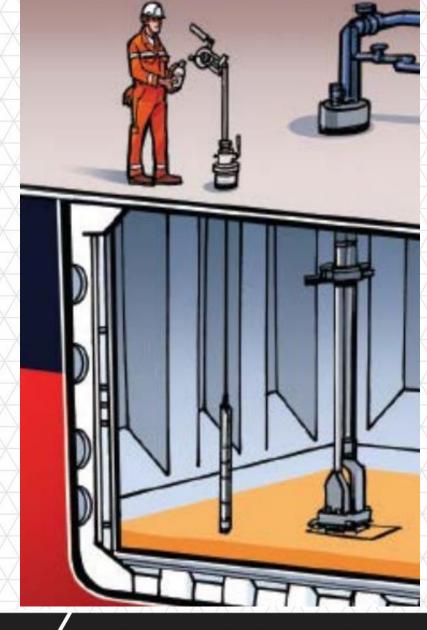
## The task

 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?





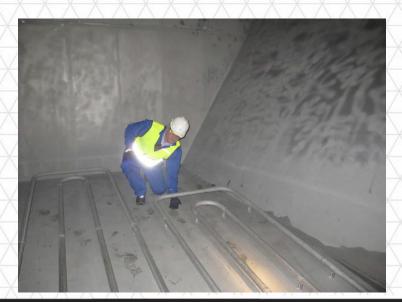




## The Snag

- 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



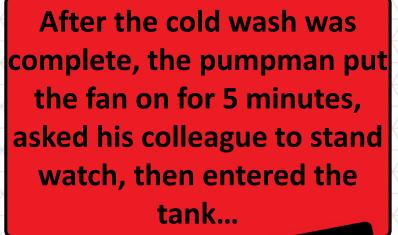




## Safe System of Work

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

























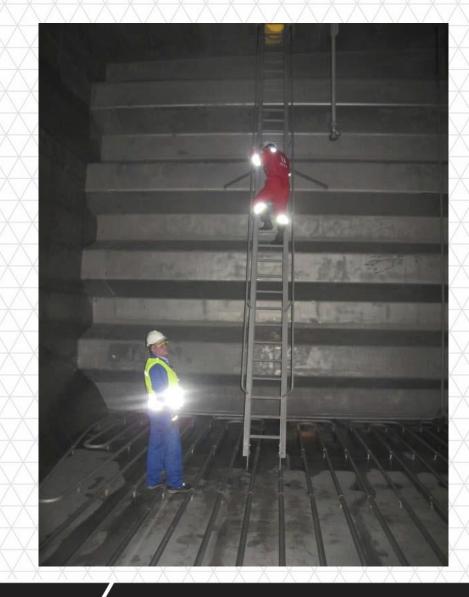






## The confined space

- 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%  $O_2$ )







## 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
- Lobtain 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
- Lobtain 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?







# The Step Change in Safety 7 Cs

#### 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?

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



#### 6. COMMITMENT

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



#### 5. COMPLACENCY

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

#### 2. COMMUNICATION

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

### 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?





# 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

