

# Safety Alert

Working with Your Team - We Make a Safety Alert Together

## Safety Alert Gasoline Tank Overflows

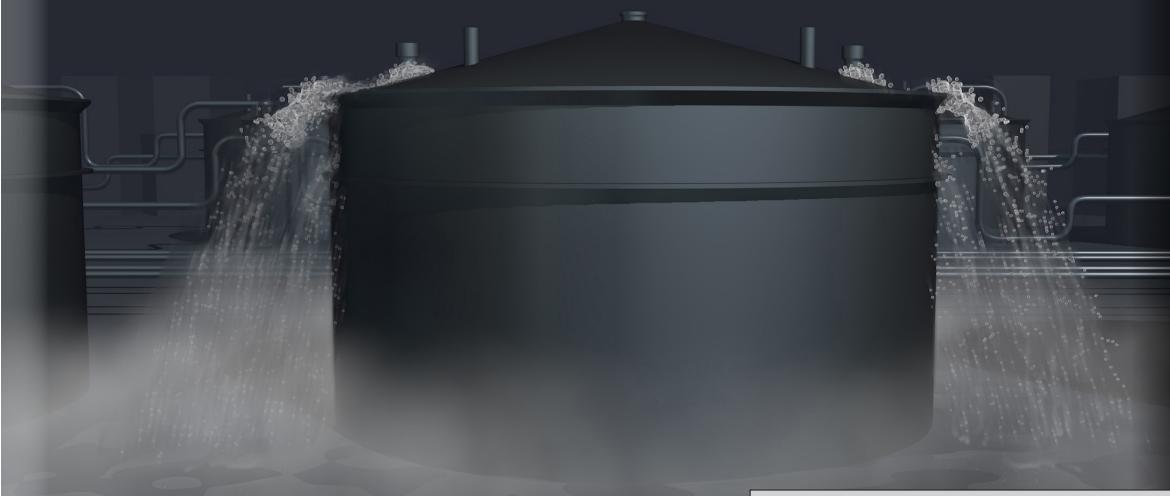
No injuries

No fire

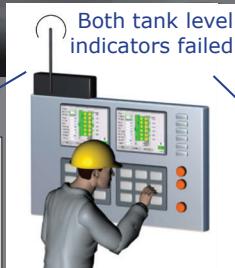
No explosion

No release outside site boundary

Transferring unleaded gasoline tank to tank  
Scheduled transfer of 3750 m<sup>3</sup> to depot tank.



Receiving tank (floating roof) overflowed  
20 m<sup>3</sup> of gasoline overflowed.  
Gasoline overflowed into a tank basin.  
Gasoline flowed through open drain in the basin.  
Then into the storm-water drainage system.



Hydrocarbon sensors alarm for vapors  
Alarm at storm-water pumping station  
detected hydrocarbon vapors in storm water.  
Control room operators responded to alarm.  
Operators shutdown gasoline transfer.

Level indicator (radar) gave false reading  
Indicator reported levels 3m below actual level.  
During filling, water at tank bottom rushed up and  
into a solid vertical shaft used for measuring level.  
Water, heavier than gasoline, depressed the  
gasoline level inside the solid measurement shaft.

Hi-Hi level indicator failed  
Hi-hi alarm independent of radar alarm.  
Hi-hi uses plunger-type lever.  
Plunger stuck.  
Did not detect hi-hi tank level.  
Did not send alarm to control room.  
Did not auto shutdown pumping into tank.

Tested all remaining hi-hi level indicators  
Similar hi-hi level indicators on 7 other tanks.  
6 passed testing; 1 failed during testing.  
All 8 replaced with a non-plunger type indicators.

Begin tank purging maintenance  
All tanks now purged on a regular schedule.

Big lesson: more real life testing  
More equipment testing under actual operating conditions.  
Testing beyond simple equipment inspection.

Change procedure on basin drain  
Due to days of heavy rain, basin drain was  
intentionally left open.  
Overflowing gasoline entered the storm-  
water system through this open basin drain.

Remind everyone of risks  
In a [study of 15 tank overflow incidents](#):  
13 of them led to fire and explosion.

Your Team Works Directly with TJ & Sandar

In 3 Sessions, Working Together, We Make a Safety Alert for Your Company



Safety Alert samples can be downloaded from [www.Larkin.Biz](http://www.Larkin.Biz)

# Safety Alert

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### Hydrocarbon sensors alarm for vapors

Alarm at storm-water pumping station detected hydrocarbon vapors in storm water. Control room operators responded to alarm. Operators shutdown gasoline transfer.

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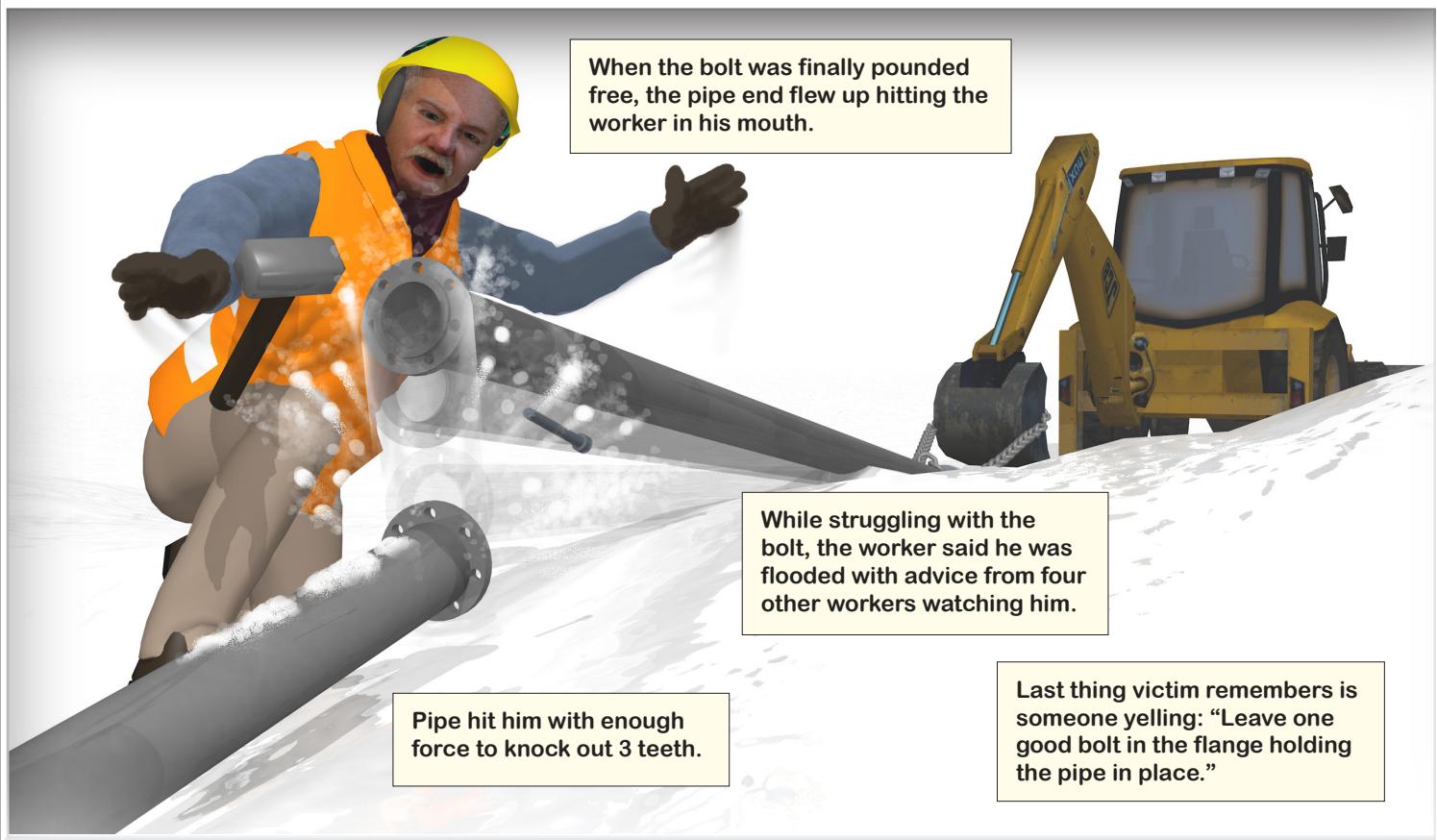
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# Safety Alert

## 3 Teeth Knocked Out Removing Piping



Engineering is designing equipment that will hold piping in place during assembly and disassembly.



**Step Back 5x5**  
Immediately before doing the work, employees take 5 steps back and 5 minutes to talk about risks.



Safety Dept looking at risk analysis tool: "Step Back 5x5"

Employees, as a group, talk about what could go wrong and how to protect themselves.

# SAFETY ALERT

## Working at Height Incident: Scaffold

Contractors are in the middle of disassembling scaffold and are on break in contractors trailer.

Top guard rail is missing.

Midrail is there, but "through bolts" are removed.

Employee tries to attach his lanyard to midrail. Midrail comes loose and falls. Employee loses his balance and also falls.

Employee falls 30 feet. Survives, but breaks his tibia, ribs, and rotator cuff.



No Warning Tag



No Barricade at Scaffold Entrance



Ignored "No Work Alone" When Working at Height



No Scaffold Training for this Employee



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Go from this

The screenshot shows a Microsoft Word document window with a red arrow pointing from the text "Go from this" to the top-left corner of the document area. The document title is "Safety Alert: External Environments Nitrogen Asphyxiation". It contains a "SAFETY ALERT" stamp, a subject line "To: All Manufacturing Supervisors Re: Risks of Nitrogen Asphyxiation in External Environments", and a body text about an increase in incidents involving nitrogen asphyxiation.

To this

The poster has a large red title "Safety ALERT" and subtitle "Worker Falls Unconscious (Nitrogen) Outside". It features a cartoon illustration of a worker in orange PPE lying unconscious on a concrete floor next to a complex network of white pipes. A callout box says: "He was examining the flange when he felt 'strange.'". Another callout box says: "He turned to walk away and fell unconscious onto the ground." Below the illustration, there are several text boxes and icons:

- A contractor saw him fall and called the emergency response team. By the time the response team arrived, the fallen operator was back on his feet and feeling normal.
- Operator said he assumed the leak was nitrogen and since he was outside, it was "OK to have a look."
- Operator should have reported the leak to those responsible for the area.
- Contractor did the right thing not trying a rescue. Instead, he called the emergency response team.
- Operator was not certain the leak was nitrogen; ethylene oxide, cyanide, hydrogen sulfide all used at the plant.
- Procedures for examining a suspicious flange involve isolation and LOTO, before anyone gets close.
- A DANGER NITROGEN sign is shown.
- Air Products says injuries and fatalities are happening with nitrogen used outside.
- BP says nitrogen is the largest cause of fatalities in their plants.

# Making a Safety Alert Together - What to do Next

## Who is Working with TJ?

You work with TJ alone.

You chose a team to work with TJ.

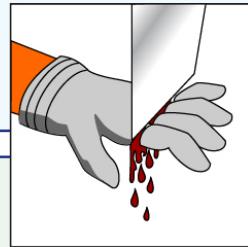


## Pick a Safety Alert

Choose a new alert you are getting ready to communicate.

Choose one of your older safety alert to practice.

Or, use one of our generic safety alerts.



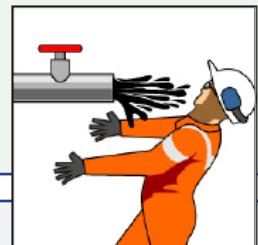
## 3 Sessions with TJ

Session #1: Text in short tight text boxes.

Session #2: Preparing instructions for artist.

Session #3: Placing words & illustration on one page.

Your New Safety Alert is Ready to Go



## Price

Live (face to face) or Virtual



Call TJ & Sandar to schedule your times.

Live = US\$18,000 (TJ pays own travel in USA/Canada)  
Three sessions within 5 consecutive days.

Virtual = US\$12,000