# Lessons Learned
**LTI**

## Incident:

**A trainee operator crushed part of his thumb between a railcar and locomotive. The thumb had to be partly amputated.**

**What:** Crushed thumb
**When:** 01-Apr-22, approx. 5:30 AM
**Where:** NNOAT, Antwerp, BELGIUM

## Summary:

Toward the end of the night shift, one team lead and 2 operators were in the process of moving two 65 tons loaded railcars with a locomotive to drop them at the pick-up location.
Once arrived at destination, the trainee operator (in charge of making the disconnection) positioned himself near the coupler location. The coupler makes the connection between the locomotive on one side, and the railcar on the other side.
To access the coupler and disconnect it, the trainee put his hand on the side of one buffer and then bent under the buffer. By doing so, he left his thumb sticking out in the gap between both buffers.
As the filled railcars had been moving before stopping, due to the inertia of the liquid (phenomenon also called as the slushing effect), the product inside the railcar tank was still moving, and therefore caused the railcars to move, and hit the locomotive. Consequently, the locomotive buffers and the railcar buffer hit each other, causing the sticking thumb to be crushed in between.
The trainee operator was immediately transferred to the hospital.

## Why did this happen?

- The trainee operator not aware of the slushing effect
- The task risk analysis and work instruction did not mention the slushing effect and the associated risks
- The trainee operator had 12 days of experience with the company
- The trainee operator had only performed similar tasks only 3 times in the past
- The trainee operator had indicated he was tired
- The trainee operator was still in training
- The other operator had been in training for 4 months
- There were not enough resources to both train the trainee and conduct the work properly

## Related essentials / Directives / Procedures:

- Task Risk Assessment for coupling and uncoupling of railcars
- Work Instructions for loading and unloading of railcars
- Training program and requirement

## Lesson learned and follow-up for each site

- The Task Risk Assessment and Work Instructions for coupling and decoupling of railcars will be updated to mention the risk related to the slushing effect and to avoid putting a body part in the “line of fire”
- Training program will be changed to:
    - ensure sufficient time to be provided to perform training
    - limit the number of trainees when training is received "on the job"
- Incident to be shared and discussed amongst the shift teams and to be included in the last-minute risk assessment

## For further information please contact:

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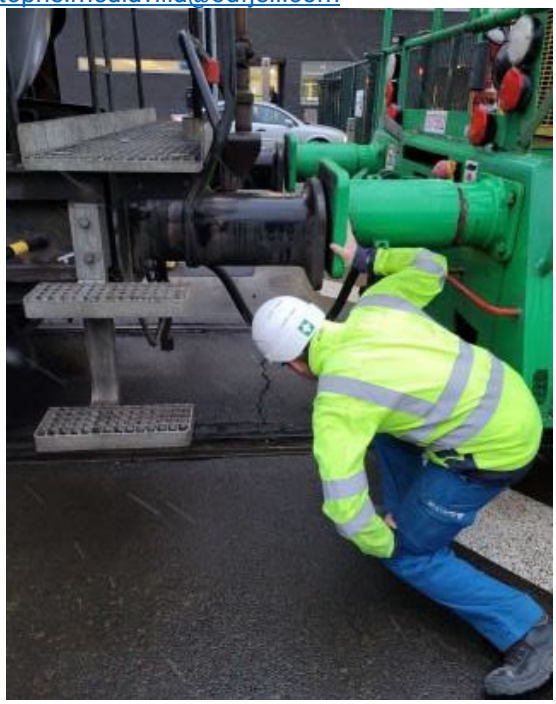

✓ **Please display this alert in relevant areas and discuss this during Safety Meeting**