Lessons Learned

Large volume spill with high cleanup cost implications

Incident:

An operator failed to connect the vapor line hose on a railcar during a Paradichlorobenzene (PDCB) load and abandoned his post during the transfer spilling approximately 1,500 gallons around the railcar and into the storm water system.

What: 1,500 gallons spill of PDCB
When: 22-June-2021
Where: Houston Terminal, US

Summary:

On 22-June-2021, an experienced operator was loading a railcar with PDCB, and after completing 25% loading, the product started to come out from the 2" valve located on top of the railcar and into the nearby stormwater system. The operator was more than 300 feet away and was therefore not able to react quickly and stop the spill. As PDCB solidifies at atmospheric temperatures it plugged the stormwater pipe on contact.

Why did this happen?

The operator decided to release pressure through the secondary liquid line and failed to connect the vapor line as required by procedure. Because the line-up was incorrect, the railcar started to build pressure during the loading operation and this pressure was released through the 2nd liquid tube because the valve was open. The operator also abandoned his post and was approximately 300 feet away when the spill took place so was not able to close the valve and stop the transfer quickly.

What went well?

- An operator who was near the incident quickly put on his chemical suit and shut the liquid valve stopping the spill
- The cleaning companies were contacted immediately
- The incident was reported immediately

Related essentials / Directives / Procedures:

- Department Of Transport regulation (DOT)
- Operating procedures

Lesson learned and follow-up for each site

- The operator failed to follow clear procedures which detail proper valve alignment and hose connections
- The operator failed to install the level probe indicator as a secondary barrier to prevent an overfill
- The operator failed to follow the DOT regulation, that requires attendance at all times during loading, as he was more than 300 feet away from the loading spot when the spill happened
- Because of the solidification of PDCB at atmospheric temperatures, the spill required extensive and costly cleaning work
- All operators were reminded to closely follow procedures and protocols at all time

For further information please contact:

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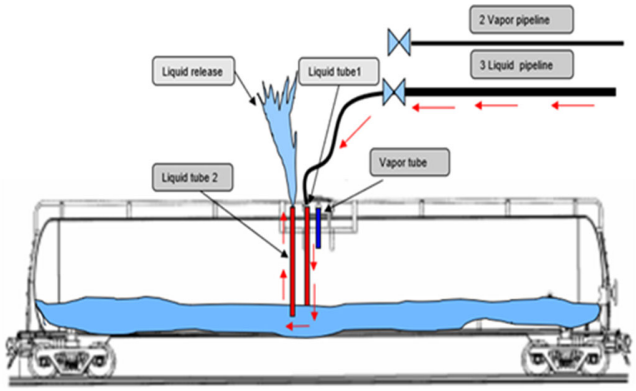

✓ **Please display this alert in relevant areas and discuss this during Safety Meeting**