Crude Spill in a tank pit

EPSC Learning Sheet, October 2019

What Happened:
At a refinery a crude line was drained to place a blind before a tank that was in maintenance. During a next transfer ca 100 ton crude leaked through the drain valve into the tank pit. The crude was not ignited.

Aspects:
- Crude contains sludge that can compromise the closing of hand valves, as was here the cause of the leak
- The drain valve was not secured with a blind or end cap
- The transfer system had not undergone a leak pressure test, after being opened and closed (a blind-flange was placed)
- It is good practice to walk the line before, or just after starting, a transfer. Notice missing end-caps after a drain!
- The detection of the large crude leak only coincidentally happened by an operator smelling the crude during the night
- ATEX compliance in the tank pit did help to avoid ignition
- Checking the tank level versus the pump or flow speed can help to detect leaks or wrong line-up in an early stage

Validate the transfer from and to tanks

EPSC Learning Sheets are meant to stimulate awareness and discussion on Process Safety
EPSC can not be held liable for the use of this sheet
Questions or Contact via www.EPSC.be