



LEARNING FROM INCIDENTS NEWSFLASH

UP-NF-201809

Upstream Operated Netherlands - NAM

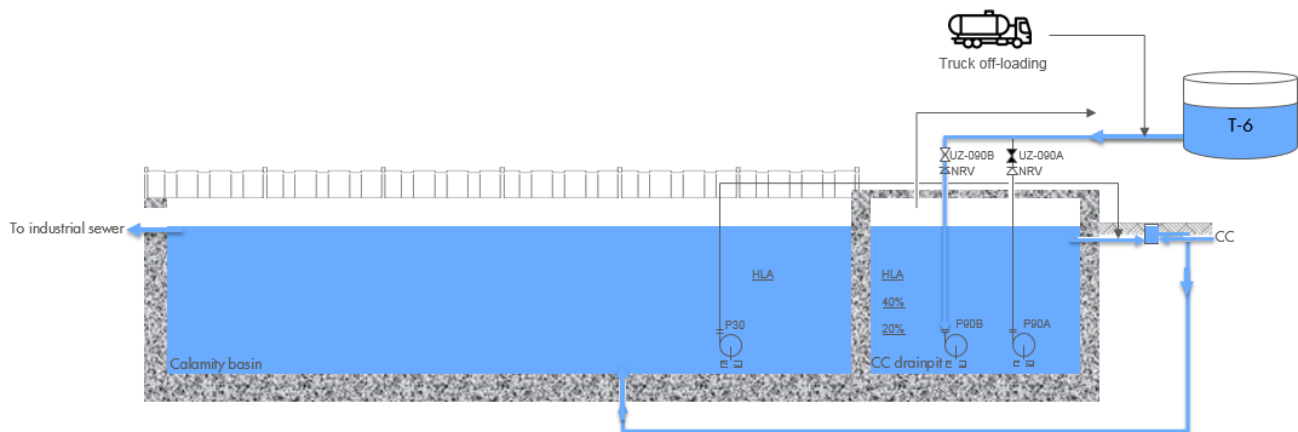
November 2018

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Hydrocarbon condensate spill to surface water Farmsum

Target audience for this newsflash

- Process Safety, Process Control and Process Engineers
- Mechanical Engineers
- Production Operations
- Civil Engineers



What happened

On October 3rd 2018, two concrete drain pits in series on NAM's tank farm DZLTP flooded and some 30 m3 hydrocarbon condensate was spilled via an industrial sewer system onto surface water outside the facility in an inhabited area.

Due to a series of events, backflow occurred from a filling line of a large storage tank towards a concrete drain pit, from there it flowed into a calamity basin which flooded to the industrial sewer..

*LFI Legal Guidance- <http://sw.shell.com/hse/incident/index.html>

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Why it happened

The investigation is not yet complete however items have been identified through the investigation to date that require attention. An LFI containing the outcome of the investigation will be issued after the investigation is completed.

Immediate actions taken to prevent reoccurrence

- The connection with the sewer system was blocked off
- The priority of the high liquid level alarms was increased
- Implementation of additional independent level alarms
- Modification of pump logics
- Replacement of failed check valve

Recommendations

- Identify situations where storage tanks can flow (back) to connected civil drain systems which are also connected to sewer systems/surface water.
- Review the possible flow path from storage tank to surface water and the health of the protecting barriers. Include a detailed check on the as-built situation (also inside covered pits), instrument settings and control logics and a cross check between HAZOP, SIL and maintenance and operational procedures.

Suggested toolbox/safety meeting questions

- Do you have situations where storage tanks can flow back via connected civil drain systems to surface water?
- How do you make sure your barriers to prevent surface water pollution are strong?

Further information

- Incident ID: 2180260
- Contact: T NAM-UPO/T/GEO

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