Lessons Learned

Near-miss

ODFJELL

Incident:

An operator not wearing proper PPE received a spray of acetic acid due to a miss communication during remote process line-up and lines and valves previously left open

What: Spray of acetic acid on operator
When: 21/04/2021
Where: NNOAT, Antwerp, Belgium

Summary

Following a failure of the heat-tracing on a line containing acetic acid (freezing temperature around 20•C), two operators had to finish blowing empty a jetty line. The line contained some remaining product after the line tracing had been repaired during the evening/night shift.
They discussed the work in the control room, one operator would stay inside the control room while the other had to perform field activities outside on the jetty line. The control room operator mentioned to his colleague that he should be wearing the proper Personal Protective Equipment (PPE), but the comment was not executed accordingly, and he continued moving towards the jetty. The field operator was wearing his basic PPE (helmet, glasses, overall, safety shoes) but he was missing the following: chemical resistant suit and boots, full-face shield, and a life jacket (as he had to work close to the waterfront).
When the field operator was about to connect the nitrogen hose to blow the line, the control room operator remotely opened already the jetty line valve before properly checking via the radio with his colleague. He did not know that the jetty manifold drain valve was already open nor that the nitrogen hose had not yet been connected to the open drain connection.
As soon as the jetty line valve was opened, the product came out of the drain valve. This resulted in a jet spray of Acetic Acid on the operator's (basic) overall towards his waist.
The operator did not know where the nearest safety shower was located. Therefore, it took him some time before he could rinse the acid off his clothes.
Before and after the incident, the operator was seen on video walking on hoses which is also not allowed and not safe to do.

Why did this happen?

- Inadequate Personal Protective Equipment (PPE) for the field operator
- Insufficient reaction from the control room operator following the ignorance of the field operator to wear the proper PPEs. In such a case, the expectation is to stop work immediately
- Insufficient following of the instruction from the control room operator and absence of adequate communication leading to opening the valve without field confirmation
- Inadequate last-minute risk assessment from both operators
- Insufficient knowledge of the safety shower position from the field operator

What went well?

- The operator didn't suffer from any serious chemical burn
- The operator didn't fall into the water

Related essentials / Directives / Procedures:

- Personal Protective Equipment (PPE) risk-matrix and instructions
- Procedure for opening process equipment and breaking line
- Last-minute risk assessment process
- Peer-to-peer watch out process

Lessons learned and follow-up for each site

- Perform toolbox training regarding the incident refreshing and restressing to follow the procedures correctly
- Communicate the lessons learned
- Ensure that a proper last-minute risk assessment is performed before starting any kind of operation and when working conditions change
- Encourage a culture where peers watch out for each other and speak up and stop the activity if necessary

For further information please contact:

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