

Process safety should be measurable



TIJS KOERTS:
Smarter interpretation and use of data is a key tool for management decisions

competencies and knowledge-gathering to occur at an early stage before any damage ensues, improving outcomes. However, Tijs Koerts stresses that a new set of errors start to emerge through reliance on technology. 'We think that computers make fail-safe decisions, however, they often still require to be programmed by humans, so there needs to be an underlying level of control – or safety-net in place.'

Process safety measurable

Apart from personal safety, digitalization also helps to determine that process safety is in order. 'We have

determined that process safety is also something that should be measurable, and that is currently not being optimally realized. Companies are open about the number of LTI's they have, however, process safety data is rarely made available.' Koerts asserts that 'political' pressure, from authorities, media, public and stakeholders around accidents in the Chemical industry creates virtually 'zero tolerance', leading to companies being very wary of releasing data. 'This is a large bottleneck to collective learning, making universal definitions difficult to establish'. By measuring, people become aware of consequences and if we compare it to personal safety – which has increased by a factor of 10 over the last years through measurement – we should be able to achieve the same advances in process safety: measurement equals insights.' ■

IN HIS ROLE AS OPERATIONAL DIRECTOR OF THE EUROPEAN PROCESS SAFETY CENTRE (EPSC) – A NON-PROFIT PLATFORM FOR PROCESS SAFETY – TIJS KOERTS IS IDEALLY PLACED TO SPOT EMERGING TRENDS AND SIGNIFICANT DEVELOPMENTS WITHIN THE REALM OF PROCESS SAFETY. WE ASKED HIM TO COMMENT ON THESE DEVELOPMENTS.

One of the interesting development within process safety is digitalization. This is manifested in many ways in process safety and is driven by technological developments such as Big Data and IoT, attaching sensors to everything and being able to monitor and subsequently analyze vast amounts of data.

asserts Tijs Koerts. So, smarter interpretation and use of data is a key tool for management decisions. 'These are measures we have been using for some time already, but which will advance in the direction of self-developing algorithms that can identify correlations within an installation.'

How comprehensive is my control?

Smart interpretation of data provides unparalleled transparency, allowing firms to determine whether they are in control or not. 'That is precisely what you need to know regarding process control: 'how comprehensive is my control within the factory?' - revealing potential threats and highlighting where action needs to be taken,'

Digital twin

Spinning out of Big Data comes technology such as VR. Today, when clients purchase a factory, for around 1% of the overall cost, they get a 'digital twin' or virtual installation, which can be used to train operators in complete safety, before the plant is delivered. It also aids emergency response preparedness enabling