

What still went wrong in 2011

DSM strives to continuously improve its performance in the field of safety, health and environment (SHE). However, there is always the possibility of something going wrong.

It is with deep regret that DSM reports the tragic death of a contractor employee in 2011. On 13 September an electrician from Austin Industrial lost his life while working on a high voltage substation at the recently acquired DSM South Center property in Augusta (Georgia, USA).

On 28 July a vapor cloud explosion followed by a fire occurred at the DSM-AGI Xinhua plant in Tainan (Taiwan). As a result, seven employees were injured, two of them seriously. These tragic accidents, together with a number of other serious incidents in 2011, led DSM to organize a Safety Day for all employees worldwide. On this day, all DSM employees discussed their safety situation and ways to further improve it.

The following list summarizes the most important other incidents in 2011. In line with DSM's reporting policy the overview also contains some serious near-misses. These are incidents that did not result in an injury, illness or damage but had the potential to do so and are therefore used as a learning opportunity.

Q1

- At DSM Engineering Plastics in Emmen (Netherlands) a contractor employee lost a fingertip when it became pinched between a belt and a pulley.
- A driver of DSM Fibre Intermediates was one of the victims in a terrorist attack in January 2011 in Moscow (Russia). He was seriously injured.
- At DSM Pharmaceutical Products in Greenville (North Carolina, USA) 25 gallons of nitric acid were spilled.
- Serious near-miss: At the DSM Anti-Infectives site in Toansa (India) a boiler chimney got tilted. Five segments with a total length of 35 meters fell down during a heavy storm.

Q2

- At DSM Nutritional Products in Venlo (Netherlands), a truck driver was hit on the head by an empty pallet (used for load securing on top of the load) when he released the lashing straps at the back of his trailer. He suffered a concussion.
- At DSM Resins in Nanjing (China) a maintenance contractor was caught between a fork lift truck and his van. He was repairing the brakes of the fork lift truck. Suddenly the fork lift truck started to move, resulting in multiple injuries.
- At DSM's site in Sittard-Geleen (Netherlands) a contractor fell while carrying a heavy hoisting beam and broke his leg.
- At the DSM site in Linz (Austria) a contractor fell from a (fixed) ladder, which resulted in a fracture.

- At DSM Dyneema in Greenville (North Carolina, USA) a mechanical failure of the closure of a roll-off container caused a spill which was only partly contained and approximately 100 gallons of solvent ran into the storm drain.
- At DSM Fibre Intermediates in Sittard-Geleen (Netherlands) the spilling of approximately 1500 kg of phenol in a secondary containment (tank pit) due to a leaking flange caused nuisance.
- Serious near-miss: at DSM Engineering Plastics in Emmen (Netherlands), mechanical failures in a roof structure created a situation of immediate danger.
- Serious near-miss: At DSM Fibre Intermediates in Sittard-Geleen (Netherlands), hydro-leak testing during start-up showed leakages on a column. This could have led to the release of hazardous substances.

Q3

- At DSM Resins in Nanjing (China) an employee was very seriously injured in a traffic accident. On his way in a customer's car visiting another customer the car was hit by a truck. Three people were in the car, one of whom died instantly.
- At DSM Nutritional Products in Lalden (Switzerland) an operator burned his feet with hot condensate when opening a coupling.
- At the DSM Nutritional Products ANH Premix Asia site in Amberthan (India) an employee suffered a serious injury to his right hand, resulting in the amputation of his index finger and the top of his thumb, when he came in contact with a motorized rotary seal in the dust collection system.
- At DSM Nutritional Products in Belvidere (New Jersey, USA) an operator lost his balance when climbing onto a platform. He fell to the ground, resulting in multiple bone fractures.
- At DSM Resins in Shunde (China) a thermal heater exploded. This was followed by a fire that damaged the oil heater and a steam boiler. DSM employees were near, but fortunately they were not hit by fragments. No personal injuries occurred.

Q4

- At DSM Engineering Plastics in Emmen (Netherlands) a piece of pipe fell on a contractor employee's hand from a height of approximately 1.70m, resulting in a serious injury.
- At DSM Fibre Intermediates in Sittard-Geleen (Netherlands) an operator suffered serious thermal burns to his forearm when he was unplugging a pump.
- At DSM Nutritional Products in Sisseln (Switzerland) a starting explosion occurred in one of the reaction steps of a vitamin production process. This scenario had been identified in the safety studies and had been safeguarded against. This part of

the installation is pressure resistant and has been closed off by an explosion suppression system. The safety measures worked as intended and nobody got hurt; only the installation was damaged.

- At DSM Nutritional Products in Chengdu (China) a flash fire occurred when an operator was discharging raw material from a bag to a silo. Nobody was injured and no facility damage resulted from the incident.
- A DSM ICT Site Support engineer was involved in a car accident while travelling from the DSM site in Zwolle to DSM Groningen (both in the Netherlands). The employee was taken to a hospital for treatment.
- Two contractor employees at DSM Fibre Intermediates, Nanjing (China) suffered burns to their faces and arms as a result of electric sparks due to a short-circuit that occurred while they were working on a 380 V cabinet. This incident was dealt with as a serious near-miss.