

René 16

Maritime Chemical Accident

1976, January 16

Port of Landskrona, Sweden

Ammonia (Class 2 and 8) in ship cargo tank; liquefied compressed gas, corrosive, produces poisonous vapours, TLV 25 ppm (USA), IDLH 300 ppm (USA)

Summary: In the evening of January 16, 1976, the Belgian tanker **René 16** was unloading ammonia in the port of Landskrona in Sweden. The ammonia was pumped through a **rubber hose** into a tank on the quay. After a few hours the hose suddenly **ruptured** with a loud bang and ammonia started to spurt onto the quay. The 7 crew members immediately abandoned the ship. The fire brigade was alerted and arrived within ten minutes. The ammonia had by then produced a **large white cloud** that covered the vessel. The firemen sprayed the cloud with water to knock it down in order to clear the sight on board the ship. Then they managed to close the valve aboard the ship and stop the ammonia leakage. By that time about 180 tonnes of ammonia had escaped and an ammonia cloud had moved by the wind towards a shipyard nearby. Fortunately there were no persons there and the cloud dispersed after about an hour. On the quay however two members of the crew were found dead. They had been captured by the cloud and died from pulmonary oedema. It was later found out that the hose used was intended for propane and butane and not ammonia, which is **corrosive**. The inside of the hose had been partially destroyed by the ammonia and this was the direct cause of the rupture.

Cause of Accident: An incorrect choice of hose.

Comments on Response: The fire service acted rapidly and started the operation successfully by spraying the white ammonia cloud to knock it down in order to clear the sight and make it possible to find the leaking valve. This accident was all due to the misuse of equipment. It shows the danger of using the wrong equipment and stresses the awareness of chemicals' properties when handling chemical.

Source of Information: Ammonia Loading Line Rupture, Report from Supra, 1976, Sweden.

(Abstracted July 2001 by Edvard Molitor, Swedish Coast Guard HQ)