

Anna Broere

Maritime Chemical Accident

1988, May 27

North Sea, 60 n.m. west of Ijmuiden, The Netherlands

Acrylonitrile (Class 3, 6) in ship cargo tanks; flammable liquid, toxic to both human and marine life, TLV 2 ppm (USA), IDLH 85 ppm (USA); **marine pollutant**

Summary: On May 27, 1988, the Dutch chemical carrier **Anna Broere**, on her way from Rotterdam to England, collided with the Swedish container ship Atlantic Compass. Atlantic Compass could continue her journey towards Antwerp while Anna Broere was severely damaged and sank in the shallow water. The cargo of Anna Broere consisted of 547 tonnes of **acrylonitrile** and 500 tonnes of **dodecylbenzene**, of which the latter is not regarded as a marine pollutant and was therefore left untreated. Acrylonitrile however is a very dangerous chemical, both to man and environment. It is classified as a marine pollutant. An **exclusion zone** with a radius of 10 km and a height of 300 m was therefore set up. Dutch authorities started an operation in order to recover the acrylonitrile with the aid of a large **floating crane**. First the wreck was sawn in half so that the stern could be lifted separate from the leaking cargo tanks. Both parts of the ship were eventually lifted and about half of the acrylonitrile cargo was recovered. The other half had leaked out and rather quickly dispersed into the sea. During the operation the concentrations of acrylonitrile in air and water was continuously monitored. Because of **hard weather** the operation was delayed several times. The operation lasted a total of 73 days, but only in 25 of those days salvage work could be carried out.

Cause of Accident: A collision with another ship caused severe damage to the hull and caused the ship to sink.

Comments on Response: The salvage operation was successfully performed. The financial costs became much greater than expected mainly due to the bad weather conditions. The concentrations of acrylonitrile were continuously monitored in order to protect the rescue personnel. The 200 tonnes of acrylonitrile that dispersed into the environment caused much less damage to the marine biota than was expected.

Source of Information: Incident report on the Anna Broere, Rijkswaterstaat North Sea Directorate, The Netherlands.
(Abstracted July 2001 by Edvard Molitor, Swedish Coast Guard HQ)