Accident Ineos 17.03.2008

- https://www.youtube.com/watch?v=71dRgsAK1xU
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- https://www.youtube.com/watch?v=fvUKlYc2Zvo
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At approximately 14:30 hours 17th March 2008 an emission of ethylene from the main pipeline that feeds the INEOS plant at Köln ignited causing a fire at the facility. A stock tank near to the initial incident also caught fire.

Around 600 firefighters attended in and around the plant with an additional 600 members of the emergency services in support.

The ethylene pipeline was isolated and the fire extinguished at around 19:00 hours (17/03/08). The fire on the acrylonitrile stock tank was brought under control at 23:50 that evening.

At 19:30 this evening (18/03/08) local residents in the village of Worringen, to the south of the site have been informed by the Köln Authorities that the precautionary advice to remain indoors has been lifted.

INEOS apologizes to local residents and those that have been affected by the incident and thanks them for their understanding and patience as it has dealt with this incident. The company also thanks the emergency services for their assistance in successfully tackling the fire and containing the impact.

INEOS will now implement a full and thorough investigation into the causes that led to this incident.

Ethylene is a colorless highly flammable gaseous unsaturated hydrocarbon C_2H_4 that is found in coal gas, can be produced by pyrolysis of petroleum hydrocarbons, and occurs in plants functioning especially as a natural growth regulator that promotes the ripening of fruit

Acrylonitrile is highly flammable and toxic at low doses. It undergoes explosive polymerization. The burning material releases fumes of hydrogen cyanide and oxides of nitrogen. It is classified as a Class 2B carcinogen (possibly carcinogenic) by the International Agency for Research on Cancer (IARC),[10] and workers exposed to high levels of airborne acrylonitrile are diagnosed more frequently with lung cancer than the rest of the population.[11] It evaporates quickly at room temperature (20 °C) to reach dangerous concentrations; skin irritation, respiratory irritation, and eye irritation are the immediate effects of this exposure

The accident was additionally investigated by the competent authority.

Experts opinions were prepared firstly by the technical supervisory organization TÜV Rheinland and additionally by the TÜV Hesse from Kassel.

- How could a repetion of this accident be avoided?
- Which measures are appropriate to prevent the repetion of this accident?