

Major Accidents 2001-2002

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This factsheet provides summary details of the 4 COMAH major accidents in England, Wales and Scotland, notified to the European Commission in the period April 2001 to March 2002.

The Control of Major Accident Hazards (COMAH) Regulations 1999 apply to approximately 1100 establishments that have the potential to cause major accidents because they use, or store, significant quantities of dangerous substances, such as oil products, natural gas, chemicals or explosives. The general duty of the regulations is that "Every Operator shall take all measures necessary to prevent major accidents and limit their consequences to persons and the environment". The regulations are unusual in that they are implemented by a Competent Authority (CA), which is not a single body, but comprises the Health and Safety Executive (HSE) working jointly with the Environment Agency (EA) and the Scottish Environment Protection Agency (SEPA). This arrangement reflects the requirements to ensure the protection of both persons and the environment.

The CA is required to notify certain major accidents to the European Commission (EC). The criteria for a COMAH EC Reportable Accident (ECRA) include: the release of a specified quantity of a dangerous substance; specified harm to persons (e.g. 1 death); specified harm to the environment (e.g. significant damage to more than 10 km of river) or in some circumstances a "near miss". This factsheet and the main report cover the third year that the regulations have been in force, from April 2001 to March 2002.

Summary details of the 4 ECRA's are provided in the table overleaf. The key points to note are that of the 4 accidents:

- 3 occurred at top tier sites and 1 at a lower tier site;
- The CA investigated all 4 accidents. 3 investigations are ongoing;
- 1 accident resulted in 3 fatalities and 17 other injuries to employees, 5 of whom were detained in hospital in intensive care. This also resulted in on-site property damage in excess of 2 million Euros;
- 1 accident resulted in 1 fatality and 3 other injuries that required hospital treatment for respiratory problems. This also resulted in a prosecution with a fine of £250,000 imposed;
- 1 accident resulted in 1 minor injury to an employee. This also resulted in on-site damage and post-event inspection costing £15,000;
- 1 accident resulted in 3 minor injuries (1 on-site, 2 off-site);
- None of the accidents caused damage to the environment.

Conclusions

1. There were 4 ECRA's in 2001/02. This is similar to the average number of major accidents that were reported annually under the previous CIMAH regulations.
2. Whilst recognising that it is difficult to draw conclusions from such a small sample, ECRA's can be used as a crude measure of safety performance. The Accident Frequency Rate (AFR) for the period April 2001 to March 2002 is 3.6 ECRA's per thousand COMAH establishments per annum. Alternatively this can be expressed as 1 ECRA per 275 COMAH establishments per annum.
3. There is concern at the magnitude and frequency of these accidents and at the repeated underlying causes of major accidents. The CA will continue to use the COMAH Regulations as the vehicle for improving corporate governance of major hazard sites.

The main report, "COMAH Major Accidents Notified to the European Commission England, Wales and Scotland 2001-2002" is available on the HSE website: -

www.hse.gov.uk/comah

Anyone who does not have access to the Internet may obtain a copy from the public register at the Anglian Region office of the Environment Agency in Peterborough. Tel No: 01733 371811.

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This is the third such report that the COMAH Competent Authority has produced and it would welcome feedback. If you have any comments or would like any further information please contact: -

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Table – COMAH EC Reportable Accidents 2001-2002

Operator, Location & Date	Accident Description & Dangerous Substances	Accident Consequences & ECRA Notification Criteria	Causes and Actions Taken
Conoco Ltd, Humber Refinery, South Killingholme, Immingham, 16 April 2001	Release & ignition of 179 tonnes of extremely flammable hydrocarbons (a mixture of ethane, propane & butane) from the de-ethaniser column overhead pipework.	Three minor injuries: 1 to on-site personnel & 2 to members of the public. On-site personnel were evacuated from the immediate vicinity. Extensive damage to off-site homes & businesses. No damage to the environment. Fire & loss of more than 5% of the top tier threshold inventory.	Failure of the de-ethaniser column overhead pipework due to erosion/corrosion causing release of extremely flammable hydrocarbons. Inspection strategy for pipework. Investigation is ongoing.
Park Environmental Services Ltd, Newport 16/17 July 2001	Release of 186m ³ of hydrogen sulphide gas from a 500m ³ treatment tank during transfer of waste alkali solution from a road tanker.	1 fatality from asphyxiation & 3 further injuries to on-site personnel from exposure to hydrogen sulphide gas. No damage to the environment. Serious danger to human health & involved the release of one or more dangerous substances.	Insufficient analysis of waste chemicals to determine the nature & volume of toxic gas that would be generated during processing. Evidence of inadequate maintenance, in that the tank lid had severely corroded & collapsed into tank & the extraction system was inadequate to prevent release. Company prosecuted for three breaches of Health and Safety at Work etc Act Section 2 & a fine imposed totalling £250000.
Conoco Ltd, Immingham Pipeline Centre, Immingham Dock, Immingham 27/28 September 2001	Release of 16.10 tonnes of liquid propane during sampling from a road tanker.	1 minor injury to on-site personnel. The emergency lasted for approximately 6 hours & no damage to the environment. Damage to adjacent vehicles estimated at £5000 & inspection of interceptors using CCTV estimated at £10000. Loss of more than 5% of the top tier threshold inventory.	Vehicle fitter attempting to drain off liquid propane for sampling in parking area at the loading terminal. Failure to close the tanker globe valve fully resulted in the spillage, which entered the surface water drains & reached the oil/water interceptors. The liquid propane flashed off but did not ignite. The pressure lifted the interceptor covers. Investigation is ongoing.
Corus (UK) Ltd, Port Talbot Works, Port Talbot 8/9 November 2001	Fire and explosion in Blast Furnace No 5 allowing an unknown quantity of extremely flammable & toxic gas (mainly carbon monoxide) to be released.	3 fatalities and 17 injured (5 were detained in hospital under intensive care, being critically ill from burns & lung damage). No damage to the environment. Serious danger to human health & release of one or more substances. Damage to property exceeded 2 million Euros (approximately £1.4 million).	An explosion occurred in Blast Furnace No 5. The blast furnace gas subsequently ignited & flames enveloped the furnace for a short period. The cause of this incident has not been established & the investigation is ongoing.

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