

Major Accidents 1999-2000

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This factsheet provides summary details of the 13 COMAH major accidents in England, Scotland and Wales, notified to the European Commission in the period April 1999 to March 2000. The full report is available on the HSE Website.

The Control of Major Accident Hazards (COMAH) Regulations 1999 apply to approximately 1200 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 as a "near miss". This factsheet and the main report cover the first year that the regulations were in force, from April 1999 to March 2000.

Summary details of the 13 ECRA's are provided in the table. The key points are:

- 1 accident resulted in the death of an employee.
- 2 accidents resulted in minor onsite injuries; an employee and 2 firefighters.
- 1 accident resulted in minor offsite injuries; 10 residents treated for eye irritation.
- 3 accidents required hundreds of people to remain confined indoors for several hours.
- 6 accidents cost a total of £4 million in onsite damage and losses.
- There was no recorded offsite property damage.
- The Competent Authority investigated all 13 accidents. There have been 2 prosecutions so far and 2 investigations are ongoing (as at October 2001).
- Formal enforcement action in the form of prohibition and/or improvement notices was taken following 4 of the accidents. In the other cases improvements were undertaken without formal notices being required.

Conclusions.

1. If the 3 "near miss" accidents are excluded (see table), then there were 10 ECRA's. This is typical of the 5 to 10 accidents reported each year 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) (excluding "near misses") is 8.3 ECRA's per thousand establishments per annum. Alternatively this can be expressed as 1 ECRA per 120 COMAH establishments per annum.
3. The CA is concerned at both the magnitude and frequency of these accidents and believes that thorough implementation of the COMAH regulations will make a significant contribution towards securing improvements.

The main report, "COMAH Major Accidents Notified to the European Commission England, Scotland & Wales 1999-2000" is available on the HSE website: -

www.hse.gov.uk/hid → HID activities → COMAH.

Any one 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: - 01733 371811.

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This is the first 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 1999-2000

Operator, Location & Date	Accident Description & Dangerous Substances	Accident Consequences & ECRA Notification Criteria	Causes and Actions Taken
BASF, Middlesbrough, Cleveland. 20/12/99	Toxic gas release. Hydrogen cyanide released during sampling.	1 employee died from cyanide poisoning. Production costs £727,000 1 death.	4 improvement notices. Prosecution delayed, awaiting Coroners inquest.
Associated Octel, Ellesmere Port, Merseyside. 11/07/99	Fire following flammable liquid metal spillage. 4 te. sodium spilled during road tanker offloading.	Rebuilding costs £200k. More than 1000 people confined indoors for 3 hours.	Employee error, failure to follow procedures. Facility relocated further away from residents.
Fine Organics, Middlesbrough, Cleveland. 02/11/99	Toxic gas release. Hydrogen chloride from a chemical reaction in a road tanker of product (CCMZ)	Production costs £700k 300 people confined indoors for 3 hours.	Precise cause of runaway chemical reaction unknown. Company amended formulation of product.
European Vinyls Corp. (UK), Runcorn, Cheshire. 08/03/00	Toxic gas release. 0.5 te. of hydrogen chloride from pipework	Eye irritation to 10 residents. 1000 people confined indoors for 4 hours.	Ruptured bellows. Investigation ongoing into "turn key" plant operation. 2 prohibition notices.
Vopak, Middlesbrough, Cleveland. 21/07/99	Toxic liquid spillage. 12 te. of sodium cyanide solution from a storage tank into ground and River Tees.	No harm to river life. Repairs and costs £245,000. Loss of 25% of top tier threshold inventory.	Corrosion of defective weld. 1 Prohibition notice. Prosecution WRA91 for polluting river - fined £5k
Union Carbide, Wilton, Cleveland. 10/07/99	Fire following flammable gas release. 12 te. of isododecane from broken pipework	2 firefighters minor injuries. Repair costs £1.1m. Loss of 24% of top tier threshold inventory.	Pipework failure due to vibration from faulty pump. 1 improvement and 1 prohibition notices.
Hickson & Welch, Castleford, West Yorkshire. 20/01/00	Toxic gas release. 70kg of sulphur dichloride from batch reactor system.	Losses & clean-up £44k. Loss of 7% of top tier threshold inventory.	Water contamination of raw materials. Sampling regime introduced.
BG Transco, Poole, Dorset. 12/12/99	Flammable gas release. 40 te. natural gas from a gas holder.	No injuries or damage. Loss of 20% of top tier threshold inventory.	Corrosion & seal water loss. Automatic seal monitoring installed on all gas holders.
Esso Petroleum, Fawley, Hampshire. 14/07/99	Flammable liquid spillage. 400 te. of crude oil (extremely flammable) from a storage tank into bund.	All oil was recovered. Loss of 8 times the top tier threshold inventory.	Corrosion of tank bottom. Company tank inspection programme amended.
Corus, Redcar, Cleveland. 09/08/99	Toxic/flammable gas release. 207 te. of blast furnace gas (21% carbon monoxide).	No injuries or damage. Production costs £1m. Loss of 22% of top tier threshold inventory.	Ruptured valve. Inadequate management and maintenance. Procedures improved.
European Vinyls Corp. (UK), Runcorn, Cheshire. 13/05/99 and 04/05/99	These 3 accidents were reported solely on the grounds of being a "near miss of particular technical interest". EVC were prosecuted under HASAWA74 for one accident and fined £30k plus £10 costs, re competency and commissioning procedures. Their other accident resulted in minor injuries to a worker because of incorrect maintenance. The BP accident also related to inadequate maintenance. Details of all 3 "near miss" accidents are provided in the full report. The current CA guidance is that a "near miss" should only be reported when there are new and significant lessons to be learned across the EU and these 3 "near miss" accidents would probably not have been reported had this guidance been available in 1999/2000.		
BP Chemicals, Wilton, Cleveland. 20/09/99			

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