

Major Accidents 2000-2001

C
O
M
A
H

F
a
c
t
s
h
e
e
t

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 2000 to March 2001.

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 second year that the regulations have been in force, from April 2000 to March 2001.

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

- 2 of the accidents occurred at top tier sites and 2 at lower tier sites.
- No fatal/serious injuries occurred.
- 1 accident required 60 residents to be evacuated for 12 hours, with further evacuations taking place due to possible off-site effects.
- 1 accident resulted in on-site property damage in excess of 2 million ECU.
- 2 other accidents cost a total of £65,000 in on-site damage and losses.
- The CA investigated all 4 accidents. 1 investigation is still ongoing.
- 1 accident resulted in a prosecution with a fine of £750,000 imposed.
- Prohibition and/or Improvement notices were served in relation to 3 of the accidents. In one other case improvement was recommended without the need for formal enforcement.
- 1 accident has led to the preparation of a public report to be published on the HSE Internet website early in 2003.

Conclusions

1. There were 4 ECRA's in 2000/01. 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 2000 to March 2001 is 3.6 ECRA's per thousand COMAH establishments per annum. Alternatively this can be expressed as 1 ECRA per 277 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 2000-2001" 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 No: 01733 371811.

C
O
M
A
H

F
a
c
t
s
h
e
e
t

COMAH

This is the second 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: -

Anton Wilson, Hazardous Installations Directorate, Chemical Strategy and Support Unit,
Health and Safety Executive, St Anne's House, Stanley Precinct, Bootle, Merseyside L20 3RA
(email: anton.wilson@hse.gsi.gov.uk) or;

Andrew Hitchings, COMAH Policy Advisor, Environment Agency, Block 1, Government Buildings,
Burghill Road, Westbury on Trym, Bristol BS10 6EZ
(email: andrew.hitchings@environment-agency.gov.uk) or;

John Burns, Policy Advisor, SEPA Edinburgh Office, Clearwater House, Heriot-Watt Research Park,
Avenue North, Riccarton, Edinburgh EH14 4AP (email: john.w.burns@sepa.org.uk).

Table – COMAH EC Reportable Accidents 2000-2001

Operator, Location & Date	Accident Description & Dangerous Substances	Accident Consequences & ECRA Notification Criteria	Causes and Actions Taken
BP Amoco, Part of BP Grangemouth Petrochemicals Complex, Falkirk 10 June 2000	Release and ignition of 13 tonnes of extremely flammable hydrocarbons (Naptha) from Fluidised Catalyst Cracking Unit.	No serious injuries to site personnel or injuries to the public. No harm to the environment. Significant fire damage to plant. Loss of more than 5% of top tier threshold inventory. Property damage in excess of 2 million ECU.	Failure of a redundant 3" branch in main transfer line due to lack of support resulting in vibration fatigue. Prosecution taken and company fined £750,000. A public report of this accident is to be published on the HSE website early in 2003.
Uniqema (ICI Chemicals and Polymers Ltd t/a), Wilton, Middlesbrough 6 October 2000	4 tonnes of flammable and toxic liquid Ethylene Oxide at approximately -5°C released to a bund during filling of a road tanker.	No injuries, plant damage or harm to the environment. Approximately £25,000 lost in material costs. Loss of more than 5% of top tier threshold inventory.	Overflow of vent knock out (KO) pot due to spring operated hand valve not closing. The CA recommended that a trip be fitted to transfer pump on high level invent KO pot to reduce reliance on manual intervention.
Cleansing Services Group Ltd, Upper Partington Works, Sandhurst, Nr Gloucester 30 October 2000	Fire in the storage area of a chemical waste transfer station. Approximately 180 tonnes of flammable and toxic material consumed in the fire.	Minor injuries to 9 people (4 fire brigade personnel, 1 police officer and 4 local residents). Evacuation of 60 people for more than 12 hours. Loss of more than 5% of top tier threshold inventory and evacuation of persons for more than 500 person hours.	Accident is still under investigation by the Competent Authority. Precise cause not yet established. COMAH Prohibition Notice issued in relation to the safe storage of packaged dangerous goods- since withdrawn (COMAH no longer applies to the site). Replaced by 2 Improvement Notices concerning safe storage of dangerous substances and revision of emergency planning arrangements.
Nipa Laboratories, Ruabon Works, Wrexham 13 January 2001	14 tonnes of toxic Phenol released from storage tank into a bunded area	No injuries, plant damage or harm to the environment. Losses and cleanup amounted to £39,800. Loss of more than 5% of top tier threshold inventory.	Incorrect manual setting of phenol transfer system caused a stock tank to overflow. Improvement Notice served resulting in re-design of safety control system.

© CROWN COPYRIGHT. This publication may be freely reproduced, except for advertising, endorsement or commercial purposes. Please acknowledge the source as HSE.
Published February 2003