The Control of Major Accident Hazards (COMAH) Regulations aim to prevent and limit the consequences of major accidents for locations that use or store significant quantities of dangerous substances on your site.

A major accident could involve an uncontrolled release, fire or explosion which can cause serious damage or harm to human health and the environment.

The COMAH Regulations apply mainly to the chemical and petrochemical industries, fuel storage and distribution. They may also affect businesses that store gas, manufacture and store explosives, or which have large warehouses or distribution facilities storing dangerous substances, e.g. agrochemicals, flammable liquids and propellants like aerosols.

**When do the requirements under COMAH apply to a business?**

There are two thresholds for dangerous substances under COMAH. These thresholds vary for different substances. If you store or use more than the lower threshold for a dangerous substance your site is classed as a **lower tier site**. If you store or use more than the higher threshold your site is a **top tier site**.

If the COMAH Regulations apply to you, you may also be regulated under planning legislation and need a hazardous substances consent from your local authority.
COMAH regulator

COMAH is regulated by the Health and Safety Executive (HSE) and the Environment Agency (EA). These organisations are jointly referred to as the Competent Authority (CA).

You will have to pay for most of the work the CA does in connection with your site, for example:
- assessment of safety reports
- on site inspection of how major hazard risks are managed
- investigation of major accidents

COMAH regulated site responsibilities

If you operate a site covered by the Control of Major Accident Hazard (COMAH) Regulations (lower or top tier), you must meet requirements for using and storing dangerous substances.

If the COMAH Regulations apply to your site, you must notify the HSE before you use or store dangerous substances. You must also tell the HSE before starting any new operation and send them any additional information they need. The notification must give details about the operator, the site, the processes carried out and an inventory of the dangerous substances present. Also you will need to notify the HSE of any significant changes for example site closure!

Assess the risks and prepare a Major Accident Prevention Policy

You must take all necessary measures to prevent major accidents and have plans, systems and procedures in place at your site to demonstrate this to the competent authority (the HSE and the EA).

You must carry out assessments to understand and predict how a major accident could happen on your site and the possible consequences if a major accident were to occur. Situations to consider, for example, include:-
- leaks and spills due to vessel or pipework failures
- explosions, e.g. caused by mixing incompatible chemicals in reactors
- fires, e.g. in processing areas, warehouses or chemical or fuel storage areas.

You must prepare a Major Accident Prevention Policy (MAPP) document. This should outline your approach to the control of major accident hazards on your site.

You must also prepare a safety management system document. This should cover the detailed steps you will take to control major hazards, and show the structure of your organisation and the responsibilities, procedures and resources for putting the MAPP into action.

Comply with the COMAH containment policy

You must comply with the COMAH containment policy if you store liquid dangerous substances in bulk. You must:
- use suitable secondary containment, e.g. a bund, to contain any liquid which escapes from a primary container or its equipment
- develop plans to help reduce the off-site impacts of an incident.

If a major accident occurs, such as a significant leak, spill, fire or explosion, you must take all necessary steps to minimise its effects on people and the environment.

You should implement your emergency procedures. These will be part of your MAPP or, for top tier sites, must be a separate plan.

Additional responsibilities for top tier COMAH-regulated sites

If you operate a site where the quantities of dangerous substances you use or store exceed the higher thresholds in the COMAH Regulations, you will be classed as a top tier site. Top tier operators must meet some additional requirements.

Submit a safety report

You must submit a safety report to the CA i.e. the HSE and the EA. Your safety report must demonstrate that you have put in place a major accident prevention policy (MAPP) and a safety management system to implement the policy.

You must review the safety report:
- at least every five years
- to account for new facts or new technical knowledge
- if you change your safety management system

You must tell the CA about these reviews, even if you don’t make any changes to the safety report.

For new top tier installations you must submit a safety report prior to construction and before operating with dangerous substances.

On-site and Off-site emergency plans

Top tier COMAH sites require two types of Emergency Plans (EP) i.e On-site and Off-site, and these need to dovetail together.

On-site EP - You must prepare this. It needs to detail what the actions of those who work on site will be in the event of an emergency.

The on-site emergency plan must be prepared before your business starts operations. This must give details of what you will do in the event of an accident. The On-site EP should include:
- names or positions of people who will put emergency procedures into action
- names or positions of people who liaise with the local authority for the off-site emergency plan
- details of the procedures for contacting the CA and other local emergency services
- details of events that may cause a major accident and actions that will be taken to avoid them
• a description of the safety equipment and resources available to deal with an incident
• details of how the risk to people on-site is minimised
• details of how the risk to the environment is minimised
• actions to be taken if an incident warning is issued
• arrangements to inform the local authority of an incident, so that the off-site emergency plan can be put into action
• details on how staff are trained to deal with emergency situations
• arrangements for helping to minimise off-site impacts of an incident.

Off-site EP - This is prepared by your Local Authority (LA) and includes details of how the emergency services and LA co-ordinate their responses to an emergency with off site effects. When preparing your emergency plan you should liaise with the CA and other relevant agencies, for example the local fire, ambulance and police services and local health authority. They can advise on possible effects to areas outside your site.

Testing, Exercising and Reviewing
Ensure all people of your on-site are aware of the emergency plan and have received training in their roles. To confirm that your plans will work when needed, you should undertake real time exercises at least every three years and revise it as necessary.

Inform local people
You must provide information about your activities to local residents, workers at other premises and every school, hospital or other establishment serving the public, which may be affected by a major accident on your site. This should include:

• the name and address of your business
• the position of the person responsible for keeping local residents and businesses informed
• confirmation that your business needs to comply with the COMAH Regulations, and that you have notified and submitted a safety report to the HSE
• a brief explanation of the activities undertaken at your site
• what dangerous substances are on your site, using common names where they exist, and their dangerous properties, eg explosive or flammable
• information on the hazard posed by these dangerous substances to people and the environment, and the safety measures in place to control the risk of an accident
• details of how people will be informed and the actions to take if a major accident occurs
• confirmation that your business is required by law to be prepared for major accidents, and to liaise with the local authority and emergency services to produce emergency plans
• advice to people to co-operate with instructions from the emergency services in the event of an accident.

INFORMATION SOURCES

...References and Useful websites

http://www.buncefieldinvestigation.gov.uk/index.htm
http://www.hse.gov.uk/comah/

• Control of Major Accident Hazards Regulations 1999.
• (COMAH Amendment Regulations 2005).

Seveso Disaster Investigation Report: On 10th July 1970 at Seveso, Italy, there was an emission of a plume of an aerosol from the vent of an unattended reactor at the ICMESA chemical works. The emission discharged a complex mixture of several tonnes of chemicals including highly toxic dioxin. More than 400 people living locally had to be treated for chemicals burns, some of them severe. The disaster has had a very significant effect upon the outlook of the chemical and process industries and upon legislation in the European Community ...notably COMAH (ex CIMAH) in the UK.

The Buncefield Investigation
On Sunday 11th December 2005, a number of explosions occurred at Buncefield Oil Storage Depot, Hemel Hempstead, Hertfordshire. A large fire engulfed a high proportion of the site. Over 40 people were injured; fortunately there were no fatalities. Significant damage occurred to both commercial and residential properties in the vicinity and a large area around the site was evacuated on emergency service advice. The fire burned for several days, destroying most of the site and emitting large clouds of black smoke into the atmosphere. Many recommendations associated with the operation of major accident sites were issued off the back of the investigation.

...Background Reading

...Key Legislation
If you want to know more about COMAH or Incident Preparedness and Emergency Response for your business, we have expert consultants who are not only highly regarded discipline technicians but have a wealth of practical experience which they can use to develop a management system that is right sized for your organisation.

Please visit us at Risk Protection Solutions Ltd to find out how we can provide you with a single source solution to help protect your company's people, property, assets, operations, the environment and reputation.

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We understand that risk means different things to different people. By working with you to identify the risks to your business, we tailor our advice to meet your needs. Our interpretation of risk in your business is always realistic.

Protection

We understand that the continuity of your business is a key priority. That's why Risk Protection Solutions offer a portfolio of services above and beyond a traditional safety consultancy. Providing competent and pragmatic advice and guidance to help you protect what's important to you.

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