

**A SHORT GUIDE TO
THE EUROPEAN COMMUNITIES
(CONTROL OF MAJOR ACCIDENT
HAZARDS INVOLVING
DANGEROUS SUBSTANCES)
REGULATIONS, 2006.**

S.I. No. 74 of 2006.

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1. PURPOSE OF THIS GUIDE.

This guide provides an overview of the main requirements of the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 74 of 2006, which were signed by the Minister for Enterprise, Trade and Employment on 15th. February 2006. It is not intended to be a precise legal interpretation of the regulations: if there is any conflict between what is stated in this guide and the regulations, the regulations will have precedence.

2. INTRODUCTION.

The Regulations implement Council Directive 2003/105/EC (amending 96/82/EC) on the control of major accident hazards involving dangerous substances (also referred to as the "Seveso 2" or COMAH Directive). They replace the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (SI 476 of 2000).

The purpose of the Regulations is to ensure that, at locations where dangerous substances are handled in quantities above the specified thresholds; there will be a high level of protection for people, property and the environment. This is to be achieved by:

- (i) preventing or minimising the risk of a major accident, and
- (ii) taking all the necessary measures to limit the consequences of such an accident, should it occur.

This Guide provides information on some of the key aspects of the regulations:

- The application of the Regulations
- The general duties of operators.
- Notifications by establishments.
- Preparation of a Major Accident Prevention Policy (MAPP).
- Safety Report (for upper-tier establishments).
- Emergency planning.
- Domino effect establishments
- Modifications.
- The functions of the competent authorities
- Land-use planning.
- Public access to information

This guide provides an overview of the regulations. The changes specifically introduced with the regulations are listed in the information note accompanying them – this is included as appendix 1. The HSA has been designated as the Central Competent Authority (usually shortened to CCA in the remainder of this document) for enforcement of the Regulations and there is provision to appoint public authorities as local competent authorities (LCA's) for the purposes of emergency planning.

3. APPLICATION OF THE REGULATIONS.

The Regulations apply to establishments that present a major accident hazard by virtue of the presence of specified quantities of dangerous substances.

There are some key terms that must be considered in deciding whether the Regulations apply to a particular industrial activity.

A **major accident** is defined in the Regulations as "an occurrence such as a major emission, fire or explosion resulting from uncontrolled developments in the course of the operation of any establishment, leading to a serious danger - (a) to human health, or (b) to the environment, whether immediate or delayed, inside or outside the establishment, and involving one or more dangerous substances".

The "**establishment**" means the whole area under the control of the same person where dangerous substances are present in one or more installations, and for this purpose two or more areas that contain installations under the control of the same person and separated only by a road, railway or inland waterway will be treated as one whole area.

In practical application the establishment is usually considered to be that area inside the security fence, where the dangerous substances are stored.

An "**operator**" is any person who operates or proposes to operate an establishment or installation or has been given, by law, decisive economic power in its technical operation.

A "**dangerous substance**" is a substance, mixture or preparation¹ listed in the first schedule to the Regulations or generally considered to fulfil any of the categories laid down in Part 2 of that schedule.

The schedule contains a list of named substances and a list of 10 categories of dangerous substance. As indicated by the definition of "presence of dangerous substances", this means the anticipated as well as the actual presence and includes substances that may be generated during loss of control of an industrial process.

Whether a substance belongs to one of the 10 categories (in Part 2 of the 1st schedule) will depend on the classification of the substances or preparation under the relevant European Directives². Suppliers are required to provide this information to their customers. However, for substances or preparations manufactured or formulated on-site this information may not always be available. In that case they should be self-classified by the site operator (provisional classification), using the principles laid down in the Directives. Where substances/preparations are exempt from the classification and labelling requirements of these Directives but possess equivalent properties in terms of major accident potential (e.g. medicinal and cosmetic products), the procedures for self/provisional classification also apply.

- A change in the classification of a substance due to changes in these classification and labelling Directives can result in establishments being subject to the Regulations, even though they have not altered their activities or inventories.

To determine whether the Regulations apply to an establishment the criterion is whether those dangerous substances (listed in the first schedule to the Regulations) are present in quantities equal to or in excess of the thresholds set out in the schedule.

If the inventory equals or is greater than that of column 3 it becomes "**upper-tier**". If it is less than this quantity but greater than the quantity in column 2, it becomes "**lower-tier**". The calculation of the inventory must follow certain rules: Appendix 2 of this guide includes schedule 1 and some example calculations.

The likely maximum quantities on site at any one time must be taken into account when estimating the inventory.

Quantities up to and including 2% of the qualifying threshold can be ignored if their location is such that they cannot act as an initiator of a major accident elsewhere on site.

¹ A preparation is a mixture or a solution composed of two or more substances

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These Regulations apply to any establishment, not just traditional industrial situations (with the exceptions outlined below) provided it has a notified inventory that meets the criteria in Schedule 1.

3.1 EXCLUSIONS FROM APPLICATION OF THE REGULATIONS

Certain activities are excluded from the scope of the regulations:

-) Property occupied by the defence forces
- a) Hazards created by ionising radiation
- b) The occurrence outside an establishment of
 - i) Transport of dangerous goods by road, rail, internal waterways, sea or air
 - ii) Intermediate temporary storage¹ associated with i)
 - iii) Loading or unloading of dangerous substances at docks, wharves or marshalling yards
 - iv) The transport to and from another means of transport at docks, wharves or marshalling yards (However the Regulations do apply to a jetty or a railway siding where it is within an establishment).
 - iv) The transport of dangerous substances in pipelines and pumping stations
- c) Activities of the extractive industries associated with exploration for, and exploitation of, minerals in mines and quarries or by means of boreholes, with the exception of thermal processing operations and storage involving dangerous substances
- c) Offshore exploration and exploitation of minerals, including hydrocarbons
- d) Waste land-fill sites (with some exceptions)

The hazards created by ionising radiation are dealt with in specific specialised legislation, and the remaining exemptions reflect the fact that, although each may present major accident potential, they do not fall easily within the framework of the legislation given their special needs or special hazards.

¹ The term “intermediate temporary storage” relates to those situations where goods are temporarily stored as part of a transport activity as happens at docks, marshalling yards, etc. It can also be applied to locations where goods vehicles park for rest breaks or overnight stops or where loads are deposited for a short period as part of a multistage transport operation. The term should not be applied to situations where loads are deliberately reorganised into different loads or accumulated into larger loads so that there is a presence of dangerous substances above the application threshold over an extended period at the location.

4. NEW AND EXISTING ESTABLISHMENTS.

The time allowed for the implementation of some duties is determined by whether an establishment is defined as a new or existing.

An establishment is "existing" if it was subject to SI 476 of 2000 either as a lower or upper-tier site.

Existing lower-tier sites becoming upper-tier on the commencement of these regulations are explicitly recognised within the regulations in terms of applicable timescales.

An establishment is "new" if:

-) it began construction or operation after the commencement of these Regulations, or
-) it began construction or operation prior to the commencement of these Regulations but which was not subject to the 2000 Regulations, or
-) there has been a modification after the commencement of these Regulations which makes it subject to Regulations 12 to 18, or
- a) it becomes an establishment by virtue of a modification taking place or by virtue of a change or increase in the nature or inventory of dangerous substances after the commencement of these Regulations (including any amendment of the classification of a dangerous substance in accordance with the requirements of EU legislation)

Timescales for various activities required under the regulations are set out schematically in appendix 3.

5 DUTIES ON OPERATORS OF ALL ESTABLISHMENTS.

The regulations impose duties on operators that depend on whether the establishment is classed as lower or upper-tier.

All establishments have certain duties: these are set out in Regulations 8-11. They consist of

- Notification to the HSA and the local planning authority
- Discharging certain general duties
- Preparation and implementation of a major accident prevention policy
- Action in the event of a major accident
- Maintaining a register of notifiable incidents.

5.1 Notification to the Health and Safety Authority.

Operators of establishments covered by the Regulations are required to notify the Central Competent Authority of their existence, and to provide specified details in relation to the operator, relevant dangerous substances, inventories, type of activity and the immediate environment of the establishment.

This notification requirement is to identify possible domino effects, monitor implementation by operators and provide information in respect of land-use planning considerations and to enable the HSA to manage its inspection programmes more effectively.

Timelines for Notification

- In the case of new establishments a notification must be sent to the Health and Safety Authority (HSA) at least 6 months before construction begins and also 6 months prior to operation. (Depending on circumstances the HSA may accept a single notification covering both of these phases, and also shorter timeframes).
- For new establishments previously operating and now qualifying under these regs – within 3 months of the commencement date.
- Notifications for existing establishments are to be amended if necessary and sent to the CCA not later than 1 month after the coming into operation of these Regulations.

The information to be included in a notification is laid down in the 3rd schedule to the Regulations. The reference to a map of scale at least 1:5,000 is to require a map on such a scale that it will show the establishment and the surrounding area that is liable to be affected by a major accident. In this context it could mean that a map of 1:7,500 etc may be more appropriate for this purpose. In the event of any significant increase in the quantity, or a significant change in the nature or physical form, of the dangerous substance present, as indicated in the notification provided, or any significant change in the processes employing it or any modification to the establishment which could have significant repercussions for major hazards, the operator should inform the HSA immediately, in writing

Notification is also required in the event of permanent closure.

5.2 Notification to Planning Authority

The operator is required to send to the planning authority the details outlined in paragraphs (a), (d), (e), (g), (i) in Schedule 3, including confirmation that the establishment is subject to the

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Regulations. This information should be sent as soon as possible after the coming into force of the Regulations or after they first apply to the establishment, and in any event not later than 3 months after this date.

Where a notification was submitted under the 2000 regs, then amendments, if necessary, should be submitted within one month.

See also section 11 on land-use planning and the requirement to seek planning permission for establishments covered by these regulations.

5.3 General Duties

The operator of an establishment must take all necessary measures to prevent the occurrence of a major accident and to limit the consequences of any accident for people and the environment. The regulations list in more specific terms what these 'all necessary measures' might be:

- Identify all major accident hazards and assess the consequences in terms of extent and severity of any such accident that may occur
- Provide and maintain:
 - Safe plant,
 - Safe systems of work,
 - Safe means of access to/exit from all parts of the establishment,
- Make arrangements for the safe handling of dangerous substances,
- Provide the necessary information, instruction, equipment, training and supervision to ensure the occupational health and safety of people working at the establishment,
- To use best practicable means to both prevent a major emission into the environment from uncontrolled developments and to render harmless and inoffensive any substances that might be released.

At the request of the CCA, the operator must provide documentary evidence to prove that all major accident hazards have been identified and that all necessary measures have been taken to comply with the regulations.

Where an establishment has been identified as one where domino effects (due to the proximity to another establishment) are of concern, the establishments are required to exchange information to enable them to take account of the nature and extent of the overall hazard in their

- Safety Report,
- MAPP or
- Internal Emergency Plan

and co-operate to allow each other to discharge duties in relation to emergency planning and information to the public.

5.4 Notification of Closure

In the event of permanent closure of an establishment, the operator must notify the HSA of that fact in writing.

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5.5. Major Accident Prevention Policy [MAPP]

The operator must prepare and implement, through a safety management system, a written policy to deal with the prevention of major accidents. This MAPP policy must take account of the elements in the second schedule of the Regulations.

An analysis of the major accidents reported in the European Community to date indicates that, in the majority (90%) of cases, management error was the underlying cause. This error can manifest itself as deficiencies of organization, inadequate training, or simply failing to take into account the possibility of human error. A MAPP is therefore very important for accident prevention.

The MAPP is a policy document and must be sufficiently detailed to show that appropriate mechanisms are in place to service the above requirements, e.g. by reference to procedures, systems etc., but it does not need to contain in-depth information, such as the results of hazard studies or audits.

As it is a policy document, the senior management of the establishment should formally approve the MAPP.

It should be modified as necessary prior to the commencement of modifications that could have significant repercussions on major hazards.

The E.U. Commission has published a guideline on preparing a MAPP and this can be accessed from the E.U. Major Accidents Hazard Bureau Website at (<http://mahbsrv.jrc.it/>). A further useful support document to the preparation of a MAPP is the Health and Safety Authority's publication on *Workplace Safety & Health Management* which provides guidelines on the implementation and maintenance of an occupational safety, health and welfare management system (available for free download from HSA website).

The Regulations require the MAPP to be available and implemented from the commencement date. The MAPP does not have to be forwarded to the HSA unless it forms part of a Safety Report for an upper-tier site (see Section 6.1) but it must be available for inspection.

Lower-tier sites have duties relating to internal emergency plans under regulation 10 (see (c) (v) of schedule 2). All employers are also subject to the emergency planning requirements of the 2005 Safety, Health & Welfare at Work Act (Section 11).

Timelines for MAPP

- Operators of existing establishments must, where necessary, amend the existing MAPP within 3 months.
- Operators of new establishments must prepare a MAPP document without delay and in any event within three months
- Operators of new establishments under construction must prepare a major accident prevention policy document prior to commencement of operation.
- the operator must review and, where necessary revise, the MAPP document prior to any modification to an installation, storage facility, process or nature or quantity of dangerous substances, which could have significant repercussions on major accident hazards

5.6 Action in the event of a major accident

This is dealt with in regulation 21. If a major accident occurs, the operator must -

- Immediately inform the HSA of that occurrence,
- Provide the HSA with the following information as soon as it becomes available -
 - The circumstances of the accident,

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- The dangerous substances involved,
- The data available for assessing the effects of the accident on man and the environment, and
- The emergency measures taken,

The HSA must be informed of the steps envisaged to alleviate any medium-term or long-term effects of the accident and to prevent any recurrence of such an accident.

The information provided must be updated if further investigation reveals additional facts that alter that information or the conclusions drawn.

The scene of a major accident must not be disturbed for a period of 3 clear working days (save with the consent of the Authority) except to administer medical aid, extinguish fires, secure the safety of people/ place or to prevent damage to the environment (regulation 20).

Incidents of the type listed in the seventh and eighth schedules to the Regulations are immediately notifiable to the HSA.

Any person having any information relevant to the occurrence or analysis of a major accident must provide such information to the Central Competent Authority on request.

5.7 Register of Notifiable Incidents

Notifiable incidents must be reported to the CCA immediately.

The operator must maintain a register of notifiable incidents (of type listed in the seventh and eight schedules) with entries to be kept for a minimum period of 10 years. The entries should be made as soon as possible after the occurrence.

6. ADDITIONAL DUTIES FOR OPERATORS OF UPPER-TIER ESTABLISHMENTS

These include:

- Production of a Safety Report
- Preparation of an internal emergency plan
- Provision of information to those responsible for off-site emergency plans
- Provision of information for the safety of the public.

Notifications, emergency plans and information to the public drawn up or presented for upper-tier establishments pursuant to the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (SI 476 of 2000) remain applicable until revision is required in accordance with the provisions of S.I. 74 of 2006.

Also, in relation to notification requirements for new upper-tier sites, the notification to the HSA does not have to include information already contained in the Safety Report.

6.1 Safety report

The purpose of the Safety Report is to effectively demonstrate that:

- a) A major accident prevention policy and a safety management system for implementing it have been put into effect;
- b) Major accident hazards have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for man and the environment;
- c) Adequate safety and reliability have been incorporated into the design, construction, operation and maintenance of any installation, storage facility, equipment and infrastructure connected with its operation which are linked to accident hazards inside the establishment;
- d) Internal emergency plans have been drawn up and information supplied to enable the external plan to be drawn up in order that the necessary measures may be taken in the event of a major accident.

In order to demonstrate that “the necessary measures” in (b) above have been taken, the Report may need to justify the choice of options adopted and, if relevant, set out why further measures are not considered necessary.

The Safety Report must also provide sufficient information to the HSA to enable decisions to be made in relation to advice to planning authorities in terms of the location of developments around existing establishments (see also section 11 [Land-use Planning](#)).

The Safety Report should contain a description of the establishment adequate to enable the HSA to have a clear picture of its purpose, location, activities and intrinsic hazards, services and technical equipment for safe operation. The extent of the description should be commensurate to the hazards of the establishments. The description should also aim at clarifying the interrelations among the different installations and systems within the establishment, both as far as the common services and the overall management of the establishment are concerned.

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The Safety Report should particularly demonstrate that the operator has identified the major accident hazards and assessed the risks associated with the installations and other activities in the establishment. It should present the results of the hazard analysis and risk assessment performed by the operator, the extent of which should be commensurate to the risk. In general the hazard analysis should document the identification of hazard sources, the likelihood of major accidents and their consequences.

The operator's review of safety systems is encouraged by the requirement to carry out internal safety audits and to review the Safety Report at least every five years or more often where justified by new facts or technical knowledge about safety matters (e.g. arising from accident or 'near-misses' analysis) or developments in knowledge concerning the assessment of hazards.

An updated inventory of the dangerous substances present in the establishment is also required.

A flexible presentation of the report is allowed, to take into account that certain information is likely to be common to a number of establishments owned by the same operator, or may have been prepared in response to other legislation.

The MAPP should be included as an integral part of the Safety Report.

The Safety Report must be supplied in triplicate written form to the HSA.

Timelines for Safety Reports

- Operators of new establishments: within 1 year.
- at least 6 months prior to the construction and the operation of a new upper-tier establishment, and neither construction nor operation may begin until the operator has received the conclusions of the HSA (in such situations a more limited report is required)
- Operators of existing establishments: amend if necessary and submit within 6 months
- Operators of existing lower-tier establishments now subject to this regulation for the first time on the commencement of these regulations: within 1 year

It may speed up the assessment of the Safety Report to supply an electronic version in addition to the written version. Whilst there is no prescribed format for the Report, it is recommended that it be compiled in such a way that the easy revision of sections will be facilitated.

The HSA is allowed to permit a timeframe shorter than the six months specified prior to construction/operation for new sites but must do so in writing.

The Safety Report must now list those involved in drawing it up.

It must now also include an assessment of the extent and severity of the consequences of identified major accidents including maps, images or, as appropriate, equivalent descriptions, showing areas that are liable to be affected by such accidents arising from the establishment, subject to the provisions of Articles 13(4) and 20

A publication setting out the criteria the HSA uses for assessing Safety Reports [*Guidance Document - Safety Report Assessment*] is available from the HSA website.

The Environmental Protection Agency has a number of publications and summaries of data covering many of the above issues in general. Additional information can be obtained from a number of non-government organisations that are listed on Enfo information sheets or the Enfo web site.

The Major Accident Hazards Bureau of the E.U. Commission has published a guidance document on the preparation of a Safety Report to meet the requirements of Council Directive 96/82/EC (Seveso II) under ISBN 92-828-1451-3 from the Office for Official Publications of the European Communities (a new version is due in 2006). This and other publications relevant to the Directive can be accessed from the MAHB Website (<http://mahbsrv.jrc.it/>).

6.1.1 Revision and availability of safety reports

Safety Reports must be reviewed with revised details submitted to the HSA:

Timelines for Safety Report review/revision

- Within 5 years of the last submitted report
- Prior to a modification to the establishment which could have significant repercussions for the prevention of major accidents
- When justified by new circumstances or new technical knowledge, by the operator or at the request of the HSA

The HSA must be informed in writing if the 5-year periodic review does not lead to a revision of the Safety Report.

The operator is required to provide the HSA with any information it requests following the assessment of the Safety Report.

The Safety Report is required to be made available to any member of the public who requests it.

6.1.2 Limitation of information in safety reports

If it can be demonstrated to the satisfaction of the HSA that particular substances present at the establishment are in a state incapable of creating a major accident hazard, then the Authority may limit the information required in the Safety Report to those matters which are relevant to the prevention of residual major accident hazards and the limitation of their consequences for man and the environment.

A list of the establishments for which a limited Safety Report has been accepted by the HSA must be provided to the European Commission together with the reasons for granting the limitation. Such limitation must be in accordance with harmonised criteria established by the E.U. Commission Decision of 26th June, 1998, as set out in Schedule 9 of the regulations.

6.2 Internal emergency plans

An operator must prepare an adequate internal emergency plan.

Timelines for Internal Emergency Plans

- in the case of entirely new establishments prior to the start of operation, or for operating establishments to which these regulations now apply for the first time, within 6 months from the date on which the regulations apply.
- in the case of an existing lower-tier establishment to which this regulation now applies for the first time with the commencement of these regulations, within 6 months from the commencement date
- in the case of an existing establishment, operators will, where necessary, amend their existing plan within 1 month of the commencement of these regulations.

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The objective of the emergency plan is:

- to contain and control incidents so as to minimise the effects, and to limit damage to man, the environment and property;
- to implement the measures necessary to protect man and the environment from the effects of major accidents;
- to communicate the necessary information to the public and to the services or authorities concerned in the area;
- to provide for the restoration and clean up of the environment following a major accident.

The plan must be prepared following consultation with employees, including long-term sub-contracted employees, contractors, local competent authorities and others, as may be appropriate e.g. material suppliers. It should be reviewed (and then revised as necessary) and tested at intervals not exceeding 3 years. The plan has to contain the information set out in the fifth schedule to the Regulations.

The operator has a duty to put the plan into effect in the event of a major accident or events leading to a major accident.

Lower-tier sites have duties relating to internal emergency plans under regulation 10 (see (c)(v) of schedule 2). All employers are also subject the emergency planning requirements of the 2005 Safety Health and Welfare at Work Act (Section 11).

6.3 Provision of information for the external emergency plan

A Local Competent Authority (LCA), in preparing the External Emergency Plan, is required to consult with the operator of the establishment. The operator of an establishment must provide the relevant Local Competent Authority with the information necessary for the authority to prepare or amend an external emergency plan for the establishment. This information should include the nature, extent and likely effects of possible major accidents, both inside and outside the relevant establishment, and must be supplied in sufficient time and in such form as the LCA requests, to allow it to meet its obligations.

Domino effect establishments identified by the HSA are to co-operate in supplying the information required by the LCA. The information must be supplied within one month, unless otherwise specified by the LCA.

If the LCA informs the CCA that a reasonable request for information has not been complied with, the CCA can take the necessary measures to obtain the information.

The HSA may determine that there is no need for an external emergency plan, on the basis of the information provided by the operator. This, in practice, prevents the preparation of unnecessary external emergency plans and ensures that the resources of the competent authorities are thereby released for other work. The HSA must however give reasons for its decision. A system to confirm decisions taken under this provision, using E.U. overview arrangements, prevents the procedure being used inconsistently across the European Community.

6.3.1 Information in relation to emergency plans to be communicated to the public

The operator must inform persons and institutions or organisations serving the public, in the specified area, on the appropriate safety measures and the steps to be taken in the event of an accident. This information (as set out in schedule 6) must be provided without the public/organisation having to request it.

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The specified area is defined in the regulations as the area which is liable to be affected by a major accident. The extent of the area is determined by the operator with the agreement of the HSA, or by the HSA alone in the absence of agreement. The HSA has published a document setting out how it will calculate the extent of the specified area [*Setting the Specified Area: the approach of the HSA*], and this is available on the HSA website.

The Regulations provide for an operator to enter into agreement with a local competent authority for the supply of this information.

This information must be supplied regularly and in the most appropriate form.

Timelines for Information to the Public

- before the operation of a new establishment
- within 6 months from the date on which these regulations first apply for an operating establishment or
- in the case of an existing upper-tier establishment, if necessary, not later than 3 months from the commencement date of these regulations
- in the case of an existing lower-tier establishment to which this duty applies for the first time on the commencement of these regulations, not later than 6 months from the commencement date.

It must be reviewed by the operator every three years and, where necessary, repeated and updated, at least if there is any modification having significant repercussions on major accident hazards.

The maximum period between the repetition of the information to the public must, in any case, be no longer than five years.

The information must be made permanently available to the public.

'Domino effect' establishments are required to co-operate in informing the public.

7. "DOMINO EFFECT" ESTABLISHMENTS

The Central Competent Authority (HSA) is required to identify establishments or groups of establishments where the likelihood or consequence of a major accident may be increased due to the location and the proximity of such establishments and their inventories of dangerous substances to each other (the so called 'domino effect').

Identification of such sites is based on the information in the notifications submitted by the operators under Regulation 11, information from the Safety Report or from other sources available to the Authority.

The Regulations require that:

- (a) suitable information is exchanged in an appropriate manner to enable these establishments to take account of the nature and extent of the overall danger of a major accident in their major accident prevention policies, management and security systems, safety reports (where required) and internal emergency plans;
- (b) upper-tier establishments co-operate with each other with regard to provision of safety information to the public, preparation of internal emergency plans and provision of information to the local competent authorities for the preparation of external emergency plans.

Following its examination of Regulation 11 notifications, the HSA will contact the relevant establishment operators who, on being notified that the possibility or consequences of a major accident may be increased because of the location of other 'Seveso' establishments, must take account of that fact as outlined above.

Note that these co-operation provisions are only applicable between operators of sites who are already subject to the Regulations and do not apply to relations between "Seveso" and non-"Seveso" companies.

8. EXTERNAL EMERGENCY PLANS/FUNCTIONS OF LOCAL COMPETENT AUTHORITIES

Under the Regulations, local competent authorities must prepare an emergency plan (referred to as an 'external emergency plan') for action outside an upper-tier establishment in relation to possible major accidents at that location.

Such plans must be prepared following notification by the HSA that -

- (a) an establishment is proposed to be located or is already in operation in its functional area,
or
- (b) an establishment is in operation or is likely to be in operation outside its functional area which, in the opinion of the HSA could cause a major accident within its functional area. This establishment may be within the State and its internal waters or may be in another country.

Preparation of a plan will involve consultation with:

- other local competent authorities
- the establishment operator
- the HSA
- the public
- the EPA, in relation to risk of environmental pollution.

The plan is required to contain the information set out in the fifth schedule to the Regulations.

The plan must be specific to the particular establishments that created the duty in the first instance.

The Regulations require that an external emergency plan should be prepared by the relevant local competent authority using such information as it has available.

Timelines for External Emergency Plan

- | |
|---|
| <ul style="list-style-type: none">- Before the operation of a new establishment- Within one year from the date on which these regulations first apply to an operating establishment
or
within 4 months of being notified by the CCA of the operation or proposed operation of an establishment
whichever is the later- In the case of an existing upper-tier establishment, amend the plan if necessary, not later than 3 months from the commencement date of these regulations.- In the case of an existing lower-tier establishment which is subject to this regulation for the first time on the commencement of these regulations, not later than 1 year. |
|---|

Emergency plans shall be reviewed, revised where necessary and tested at intervals not exceeding 3 years.

The HSA may decide, by virtue of the information contained in a Safety Report that the requirement for a local competent authority to prepare an external emergency plan shall not apply. In this case, the HSA will provide the reason for its decision in writing to the local competent authority.

9. FUNCTIONS OF THE CENTRAL COMPETENT AUTHORITY- THE HEALTH AND SAFETY AUTHORITY (HSA)

The Health and Safety Authority, as Central Competent Authority under the Regulations, is obliged to carry out certain duties that are detailed in the Directive.

These include the organisation of a system of inspections or other measures of control appropriate to the type of establishment involved and the examination of Safety Reports and their updates.

The inspection or other control measures must be sufficient for a planned and systematic examination of the systems being employed at the establishment, whether of a technical, organisational or managerial nature, so as to ensure, in particular,

- that the operator can demonstrate that he has taken appropriate measures, in connection with the various activities involved in the establishment, to prevent major accidents;
- that the operator can demonstrate that he has provided appropriate means for limiting the consequences of major accidents, on site and off site;
- that the data and information contained in the safety report, or any other report submitted, adequately reflects the conditions in the establishment;
- that information in respect of safety measures and the requisite behaviour in the event of an accident has been supplied to the public.

In addition to the requirement to carry out inspections, the HSA must:

- fully investigate major accidents and ensure that any necessary remedial actions are taken,
- identify and communicate with those establishments where it considers there to be a risk of a "domino" effect,
- examine Safety Reports and communicate its conclusions to operators within a reasonable period of time,
- prohibit the use or bringing into use of any establishment or part of where the measures taken by the operator for the prevention or mitigation of major accidents are seriously deficient,
- notify the local competent authorities that there is an establishment subject to the Regulations operating or proposed to be operating in their functional areas,
- provide advice to planning authorities in respect of the risks arising from establishments,
- notify the EU Commission of the occurrence of major accidents,
- inform the EU Commission of those establishments where the Authority has agreed to a limitation of information in the Safety Report on the basis that a substance is incapable of creating a major-accident hazard,
- exchange information with the EU Commission on the experience acquired with regard to major accidents .

10. ROLE OF THE EPA

Under these regulations the HSA may consult as appropriate with the Environmental Protection Agency on the information contained in a safety report that is relevant to the possible risks of environmental pollution from a major accident.

The EPA shall also be consulted by the LCA's in the preparation of external emergency plans, in relation to possible risks of environmental pollution from a major accident.

11. LAND-USE PLANNING

This provision is a key element in respect of preventing and limiting the consequences of major accidents in that it requires Member States to take into account establishments subject to the requirements of Directive 96/82/EC (as amended) in their land-use policies and/or other relevant policies.

This aspect of the Directive is implemented under planning legislation (contact Dept of Environment, Heritage and Local Government if further details required).

Under S.I. 74 of 2006, the HSA is required to provide technical advice to planning authorities in respect of the risks arising from major accident hazard establishments: the planning authorities make the actual planning decisions.

The stated objectives of land-use planning are to be achieved through controls on:

- (a) the siting of new establishments;
- (b) modifications of an existing installation, establishment, storage facility or process, or changes in the nature or quantity of dangerous substances which could have significant repercussions on major accident hazards;
- (c) new developments surrounding existing establishments such as transport links, establishments frequented by the public and residential areas, where the siting or developments are such as to increase the risk or consequences of a major accident.

Land-use policy must take account of the need to maintain appropriate distances between major accident hazard establishments and residential areas, buildings and areas of public use, major transport routes as far as possible, recreational areas and areas of particular natural sensitivity or interest, and, in the case of existing establishments, of the need for additional technical measures so as not to increase the risks to people.

It is important to note that these provisions are to be applied to all establishments.

The HSA will determine a consultation distance for each establishment and communicate this information to the relevant planning authority, which in turn will seek the advice of the Authority if a planning application relates to a development within the consultation distance. Individual applications may not require referral if the HSA has already provided its general advice for the area.

Process changes in establishments will require planning permission if they significantly increase the off-site hazards or risks. Application of the Major Accident Prevention Policy (MAPP) requires operators to systematically identify their major hazards and assess their likelihood and severity. This assessment enables the operator to generate a geographical based hazard/risk profile for its current situation. If a proposed process change increases hazards or risks beyond the current profile then it triggers an application through the normal planning process.

The provision of a new establishment, including a previously operating site, is a matter subject to the planning process.

Directive 2003/105/EC requires the EU Commission to produce guidelines for a technical database for use in the provision of LUP technical advice within 3 years (i.e. by 2006). This database will assist member states in giving advice and will be on the MAHB site when it is approved.

12. PUBLIC ACCESS TO INFORMATION

The operator of an upper-tier establishment must make the Safety Report for the site available to any member of the public who requests it, and is entitled to levy a reasonable charge for the service.

An operator may limit the content of the Safety Report made available to the public for reasons of industrial, commercial or personal confidentiality, public security or national defence but only with the written consent of the HSA. In such cases an application must be made to the HSA in writing, with supporting documentation from the relevant agency as necessary.

Information received by the HSA or a local competent authority pursuant to these Regulations will be regarded as coming within the scope of the Access to Information on the Environment Regulations, 1998 (S.I. No. 125 1998) as well as the Freedom of Information Act, 1997 (No. 13 of 1997) with the exception of information relating to:

- (a) the confidentiality of the deliberations of the competent authorities and the European Commission
- (a) the confidentiality of international relations and national defence,
- (a) public security,
- (a) the confidentiality of preliminary investigation proceedings or of current legal proceedings,
- (a) commercial and industrial secrets, including intellectual property,
- (a) personal data and/or files,
- (b) data supplied by a third party if that party asks for them to be kept confidential.

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13. CURRENT SOURCES OF INFORMATION

Our website www.hsa.ie contains a Seveso FAQ and guidance produced by the Authority.

Copies of legislation are available from the office of the Attorney General's website <http://www.irishstatutebook.ie/>

The Major Accident Hazards Bureau (MAHB) of the European Commission maintains a website on the "Seveso " Directive at <http://mahbsrv.jrc.it/>.

Appendix 1 – PRINCIPAL CHANGES

The principal changes incorporated in the new Regulations include the following -

Schedule 1 (which replicates the amended Annex 1 of Directive 96/82/EC) determines the application of the Regulations. The definition of dangerous substance has been changed to follow more exactly the definition in Directive 96/82/EC.

The definition of establishment has been extended to cover the situation where two or more areas under the control of the same person and separated only by a road, railway or inland waterway shall be treated as one whole area; this approach will give a more realistic presentation of the major accident profile of an area.

The application of the Regulations has been extended as per Directive 2003/105/EC to cover -

- chemical and thermal processing operations and storage related to operations associated with the exploitation of minerals,
- operational tailings disposal facilities, including tailing ponds or dams, containing dangerous substances as defined in Schedule 1, in particular when used in connection with the chemical and thermal processing of minerals.

The non-application of the Regulations to offshore exploration has been made more explicit.

The timeframe (3 months) for the preparation of the major accident prevention policy document (MAPP) by new establishments has been incorporated as per the Directive. Operators of existing establishments must, where necessary, amend their MAPP document within 3 months of the commencement of the Regulations.

The scope of the safety management system to be addressed under the MAPP has been extended as per the Directive to include the role of subcontracted personnel and their training, including preparation for emergencies.

Operators of new establishments must send Notifications to the Central Competent Authority (Health and Safety Authority) within 3 months of the commencement of the Regulations, as per the Directive.

Operators of existing establishments must, where necessary, amend their Notifications within one month of the commencement of the Regulations.

The content of Safety Reports with regard to the assessment of the extent and severity of the consequences of identified major accidents has been further detailed as per the Directive to include maps, images or, as appropriate, equivalent descriptions, showing areas which are liable to be affected by such accidents.

Safety Reports will contain the names of the relevant organisations involved in the drawing up of the report, as required by the Directive.

Operators of establishments which subsequently fall within the scope of the Directive will have one year to submit a Safety Report (as per the Directive) and, where necessary, operators of existing establishments will have 6 months, or longer as may be agreed with the HSA, to amend their reports,

Operators of establishments which subsequently fall within the scope of the Directive will have 6 months to prepare an internal emergency plan.

Operators of existing establishments shall, where necessary, amend their internal emergency plans within one month of the new regulations coming into force.

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The Central Competent Authority may consult as appropriate with the Environmental Protection Agency on the information contained in a safety report that is relevant to the possible risks of environmental pollution from a major accident.

Under the Regulations, the Central Competent Authority does not have to rely solely on information from notifications/Safety Reports to determine the presence of a group of establishments where there is likely to be a "domino effect"

The scale of charges applicable under Regulation 46 is that specified from time to time by the relevant Minister.

APPENDIX 2 - APPLICATION OF THE DIRECTIVE

INTRODUCTION

1. This Annex applies to the presence of dangerous substances at any establishment within the meaning of Article 3 of this Directive and determines the application of the relevant Articles thereof.
2. Mixtures and preparations shall be treated in the same way as pure substances provided they remain within concentration limits set according to their properties under the relevant Directives given in Part 2, Note 1, or their latest adaptation to technical progress, unless a percentage composition or other description is specifically given.
3. The qualifying quantities set out below relate to each establishment.
4. The quantities to be considered for the application of the relevant Articles are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2 % of the relevant qualifying quantity shall be ignored for the purposes of calculating the total quantity present if their location within an establishment is such that it cannot act as an initiator of a major accident elsewhere on the site.
5. The rules given in Part 2, Note 4 governing the addition of dangerous substances, or categories of dangerous substances, shall apply where appropriate.
6. For the purposes of this Directive, a gas is any substance that has an absolute vapour pressure equal to or greater than 101.3 kPa at a temperature of 20 C.
7. For the purposes of this Directive, a liquid is any substance that is not defined as a gas and that is not in the solid state at a temperature of 20 C and at a standard pressure of 101.3 kPa.

PART 1

Named substances

- Where a substance or group of substances listed in Part 1 also falls within a category of Part 2, the qualifying quantities set out in Part 1 must be used.

Column 1	Column 2	Column 3
Dangerous substances	Qualifying quantity (tonnes) for the application of	
	Articles 6 and 7	Article 9
Ammonium nitrate (see note 1)	5,000	10,000
Ammonium nitrate (see note 2)	1,250	5,000
Ammonium nitrate (see note 3)	350	2,500
Ammonium nitrate (see note 4)	10	50
Potassium nitrate (see note 5)	5,000	10,000
Potassium nitrate (see note 6)	1,250	5,000
Arsenic pentoxide, arsenic (V) acid and/or salts	1	2
Arsenic trioxide, arsenious (III) acid and/or salts		0.1
Bromine	20	100
Chlorine	10	25
Nickel compounds in inhalable powder form (nickel monoxide, nickel dioxide, nickel sulphide, trinickel disulphide, dinickel trioxide)		1
Ethyleneimine	10	20
Fluorine	10	20
Formaldehyde (concentration \geq 90 %)	5	50
Hydrogen	5	50
Hydrogen chloride (liquefied gas)	25	250
Lead alkyls	5	50

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Liquefied extremely flammable gases (including LPG) and natural gas	50	200
Acetylene	5	50
Ethylene oxide	5	50
Propylene oxide	5	50
Methanol	500	5,000
4, 4-Methylenebis (2-chloraniline) and/or salts, in powder form		0.01
Methylisocyanate		0.15
Oxygen	200	2,000
Toluene diisocyanate	10	100
Carbonyl dichloride (phosgene)	0.3	0.75
Arsenic trihydride (arsine)	0.2	1
Phosphorus trihydride (phosphine)	0.2	1
Sulphur dichloride	1	1
Sulphur trioxide	15	75
Polychlorodibenzofurans and polychlorodibenzodioxins (including TCDD), calculated in TCDD equivalent (see note 7)		0.001
The following CARCINOGENS at concentrations above 5% by weight: 4-Aminobiphenyl and/or its salts, Benzotrichloride, Benzidine and/or salts, Bis	0.5	2

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<p>(chloromethyl) ether, Chloromethyl methyl ether, 1,2-Dibromoethane, Diethyl sulphate, Dimethyl sulphate, Dimethylcarbamoyl chloride, 1,2- Dibromo-3-chloropropane, 1,2- Dimethylhydrazine, Dimethylnitrosomine, Hexamethylphosphoric triamide, Hydrazine, 2- Naphthylamine and/or salts, 4–Nitrodiphenyl, and 1,3 Propanesultone</p>		
<p>Petroleum products:</p> <p>(a) Gasolines and naphthas, (b) Kerosenes (including jet fuels) (c) Gas oils (including diesel fuels, home heating oils and gas oil blending streams)</p>	<p>2,500</p>	<p>25,000</p>

NOTES

1. *Ammonium nitrate (5,000/10,000): fertilisers capable of self-sustaining decomposition*

This applies to ammonium nitrate-based compound/composite fertilisers (compound/composite fertilisers containing ammonium nitrate with phosphate and/or potash) in which the nitrogen content as a result of ammonium nitrate is-

- between 15,75% ⁽¹⁾ and 24,5% ⁽²⁾ by weight, and either with not more than 0.4% total combustible/organic materials or which fulfil the requirements of Annex II of Directive 80/876/EEC,
- 15,75% ⁽³⁾ by weight or less and unrestricted combustible materials,

and which are capable of self-sustaining decomposition according to the UN Trough Test (see United Nations Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria, Part III, subsection 38.2).

2. *Ammonium nitrate (1,250/5,000): fertiliser grade*

This applies to straight ammonium nitrate-based fertilisers and to ammonium nitrate-based compound/composite fertilisers in which the nitrogen content as a result of ammonium nitrate is

- more than 24,5% by weight, except for mixtures of ammonium nitrate with dolomite, limestone and/or calcium carbonate with a purity of at least 90%,
- more than 15,75% by weight for mixtures of ammonium nitrate and ammonium sulphate,
- more than 28%⁽⁴⁾ by weight for mixtures of ammonium nitrate with dolomite, limestone and/or calcium carbonate with a purity of at least 90%,

and which fulfil the requirements of Annex II of Directive 80/876/EEC

3. *Ammonium nitrate (350/2,500): technical grade*

This applies to:

- ammonium nitrate and preparations of ammonium nitrate in which the nitrogen content as a result of the ammonium nitrate is
- between 24.5% and 28% by weight, and which contain not more than 0.4% combustible substances,
- more than 28% by weight, and which contain not more than 0.2% combustible substances
- aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is more than 80% by weight.

4. *Ammonium nitrate (10/50): "off-specs" material and fertilisers not fulfilling the detonation test*

This applies to:

- material rejected during the manufacturing process and to ammonium nitrate and preparations of ammonium nitrate, straight ammonium nitrate-based fertilisers and ammonium nitrate-based compound/composite fertilisers referred to in Notes 2 and 3,

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that are being or have been returned from the final user to a manufacturer, temporary storage or reprocessing plant for reworking, recycling or treatment for safe use, because they no longer comply with the specifications of Notes 2 and 3:

- fertilisers referred to in Note 1, first indent, and Note 2 which do not fulfil the requirements of Annex II of Directive 80/876/EEC.

5. Potassium nitrate (5,000/10,000):

Composite potassium-nitrate based fertilisers composed of potassium nitrate in prilled/granular form.

6. Potassium nitrate (1,250/5,000):

Composite potassium-nitrate based fertilisers composed of potassium nitrate in crystalline form.

7. Polychlorodibenzofurans and polychlorodibenzodioxins

The quantities of polychlorodibenzofurans and polychlorodibenzodioxins are calculated using the following factors:

Intentional Toxic Equivalent Factors (ITEF) for the congeners of concern (NATO/CCMS)			
2,3,7,8-TCDD	1	2,3,7,8-TCDF	0.1
1,2,3,7,8-PeDD	0.5	2,3,4,7,8-PeCDF	0.5
		1,2,3,7,8-PeCDF	0.05
1,2,3,4,7,8-HxCDD	0.1		
1,2,3,6,7,8-HxCDD	0.1	1,2,3,4,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDD	0.1	1,2,3,7,8,9-HxCDF	0.1
		1,2,3,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDD	0.01	2,3,4,6,7,8-HxCDF	0.1
OCDD	0.001	1,2,3,4,6,7,8-HpCDF	0.01
		1,2,3,4,7,8,9-HpCDF	0.01
		OCDF	0.001

(T = tetra, P = penta, Hx = hexa, HP = hepta, O = octa)

(1) 15.75% nitrogen content by weight as a result of ammonium nitrate corresponds to 45% ammonium nitrate

(2) 24.5% nitrogen content by weight as a result of ammonium nitrate corresponds to 70% ammonium nitrate

(3) 15.75% nitrogen content by weight as a result of ammonium nitrate corresponds to 45% ammonium nitrate.

(4) 28% nitrogen content by weight as a result of ammonium nitrate corresponds to 80% ammonium nitrate.

PART 2

Categories of substances and preparations not specifically named in Part 1

Column 1		Column 2	Column 3
Categories of dangerous substances		Qualifying quantity (tonnes) of dangerous substances as delivered in Article 3 (4), for the application of	
		Articles 6 and 7	Article 9
1.	VERY TOXIC	5	20
2.	TOXIC	50	200
3.	OXIDIZING	50	200
4.	EXPLOSIVE (see Note 2) where the substance, preparation or article falls under UN/ADR Division 1.4	50	200
5.	EXPLOSIVE (see Note 2) where the substance, preparation or article falls under any of: UN/ADR Divisions 1.1, 1.2, 1.3, 1.5 or 1.6 or risk phrase R2 or R3	10	50
6.	FLAMMABLE (where the substance or preparation falls within the definition given in Note 3(a))	5,000	50,000
7 a.	HIGHLY FLAMMABLE (where the substance or preparation falls within the definition given in Note 3(b)(1))	50	200
7 b.	HIGHLY FLAMMABLE liquids (where the substance or preparation falls within the definition given in Note 3(b)(2))	5,000	50,000
8.	EXTREMELY FLAMMABLE (where the substance or preparation falls within the definition given in Note 3(c))	10	50
9.	DANGEROUS FOR THE ENVIRONMENT risk phrases:		
	(i) R50: "Very toxic to aquatic organisms" (including R50/53)	100	200
	(ii) R51/53: "Toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment"	200	500

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10.	ANY CLASSIFICATION not covered by those given above in combination with risk phrases:		
	(i) R14: "Reacts violently with water" (including R14/15)	100	500
	(ii) R29: "in contact with water, liberates toxic gas"	50	200

NOTES

1. Substances and preparations are classified according to the following Directives (as amended) and their current adaptation to technical progress:

- Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances ⁽¹⁾,
- Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations ⁽²⁾
- In the case of substances and preparations which are not classified as dangerous according to either of the above Directives, for example waste, but which nevertheless are present, or are likely to be present, in an establishment and which possess or are likely to possess, under the conditions found at the establishment, equivalent properties in terms of major-accident potential, the procedures for provisional classification shall be followed in accordance to the relevant article of the appropriate Directive.
- In the case of substances and preparations with properties giving rise to more than one classification, for the purposes of this Directive the lowest qualifying quantities shall apply. However, for the application of the rule in Note 4, the qualifying quantity used shall always be the one corresponding to the classification concerned.

For the purposes of this Directive, the Commission shall establish and keep up to date a list of substances which have been classified in the above categories by a harmonised Directive in accordance with Directive 67/548/EEC.

2. An 'explosive' means:

- a substance or preparation which creates the risk of an explosion by shock, friction, fire or other sources of ignition (risk phrase R 2),
- a substance or preparation which creates extreme risks of explosion by shock, friction, fire or other sources of ignition (risk phrase R 3), or
- a substance, preparation or article covered by Class 1 of the European Agreement concerning the International Carriage of Dangerous Goods by Road (UN/ADR), concluded on 30 September 1957, as amended, as transposed by Council Directive 94/55/EC of 21 November 1994 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road ⁽³⁾ .

Included in this definition are pyrotechnics, which for the purposes of this Directive are defined as substances (or mixtures of substances) designated to produce heat, light, sound, gas or

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smoke or a combination of such effects through self-sustained exothermic chemical reactions. Where a substance or preparation is classified by both UN/ADR and risk phase R2 or R3, the UN/ADR classification shall take precedence over assignment of risk phrases.

Substances and articles of Class 1 are classified in any of the divisions 1.1 to 1.6 in accordance with the UN/ADR classification scheme. The divisions concerned are:

Division 1.1: Substances and articles which have a mass explosion hazard (a mass explosion is an explosion which affects almost the entire load virtually instantaneously).

Division 1.2: Substances and articles which have a projection hazard but not a mass explosion hazard.

Division 1.3: Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard:

(a) combustion of which gives rise to considerable radiant heat: or

(b) which burns one after another, producing minor blast or projection effects or both.

Division 1.4: Substances and articles which present only a slight risk in the event of ignition or initiation during carriage. The effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire shall not cause virtually instantaneous explosion of virtually the entire contents of the package.

Division 1.5: Very insensitive substances having a mass explosion hazard which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of carriage. As a minimum requirement they shall not explode in the external fire test.

Division 1.6: Extremely insensitive articles which do not have a mass explosion hazard. The articles contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental initiation or propagation. The risk is limited to the explosion of a single article.

Included in this definition are also explosive or pyrotechnic substances or preparations contained in articles. In the case of articles containing explosive or pyrotechnic substances or preparations, if the quantity of the substance or preparation contained is known, that quantity shall be considered for the purposes of this Directive. If the quantity is not known, then, for the purposes of this Directive, the whole article shall be treated as explosive.

3. Flammable, highly flammable, and extremely flammable in categories 6, 7 and 8 mean:

(a) flammable liquids:

- substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55°C (risk phrase R 10), supporting combustion;

(b) highly flammable liquids:

1. - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any input of energy (risk phrase R 17),

- substances and preparations which have a flash point lower than 55 °C and which remain liquid under pressure, where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards;

2. substances and preparations having a flash point lower than 21 °C and which are not extremely flammable (risk phrase R 11, second indent);

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(c) extremely flammable gases and liquids:

1. liquid substances and preparations which have a flash point lower than 0°C and the boiling point (or, in the case of a boiling range, the initial boiling point) of which at normal pressure is less than or equal to 35 °C (risk phrase R 12, first indent), and
 2. gases which are flammable in contact with air at ambient temperature and pressure (risk phrase R 12, second indent), which are in a gaseous or supercritical state, and
 3. flammable and highly flammable liquid substances and preparations maintained at a temperature above their boiling point.
4. In the case of an establishment where no individual substance or preparation is present in a quantity above or equal to the relevant qualifying quantities, the following rule shall be applied to determine whether the establishment is covered by the relevant requirements of the Directive.

This Directive shall apply if the sum -

$q_1 / Q_{U1} + q_2 / Q_{U2} + q_3 / Q_{U3} + q_4 / Q_{U4} + q_5 / Q_{U5} + \dots$ is greater than or equal to 1,

where q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Parts 1 or 2 of this Annex,

and Q_{Ux} = the relevant qualifying quantity for substance or category x from column 3 of Parts 1 or 2

This Directive shall apply, with the exception of Articles 9, 11 and 13, if the sum

$q_1 / QL1 + q_2 / QL2 + q_3 / QL3 + q_4 / QL4 + q_5 / QL5 + \dots$ is greater than or equal to 1,

where q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Parts 1 or 2 of this Annex,

and QLx = the relevant qualifying quantity for substance or category x from column 2 of Parts 1 or 2.

- This rule shall be used to assess the overall hazards associated with toxicity, flammability, and eco-toxicity. It must therefore be applied three times:
 - (a) for the addition of substances and preparations named in Part 1 and classified as toxic or very toxic, together with substances and preparations falling into categories 1 or 2;
 - (b) for the addition of substances and preparations named in Part 1 and classified as oxidising, explosive, flammable, highly flammable, or extremely flammable, together with substances and preparations falling into categories 3, 4, 5, 6, 7a, 7b or 8;

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- (c) for the addition of substances and preparations named in Part 1 and classified as dangerous for the environment (R50 (including R50/53) or R51/53), together with substances and preparations falling into categories 9(i) or 9(ii);

The relevant provisions of this Directive apply if any of the sums obtained by (a), (b) or (c) is greater than or equal to 1.

⁽¹⁾OJ 196, 16.8.1967, p.1. Directive as last amended by Regulation (EC) No 807/2003 (OJ L 122, 16.5.2003, p.36).

⁽²⁾OJ L 200, 30.7.1999, p.1. Directive as amended by Commission Directive 2001/60/EC (OJ L 226, 22.8.2001, p.5).

⁽³⁾OJ L 319, 12.12.1994, p.7. Directive as last amended by Commission Directive 2003/28/EC (OJ L 90, 8.4.2003, p.45).



APPENDIX 3 – ADDITION RULE EXAMPLE



A site has the following potential inventory:

- ✓ 3 tonnes of Ethylene Oxide (*Named Substance* with lower-tier threshold 5 tonnes, upper tier threshold 50 tonnes, classified *Extremely Flammable* and *Toxic*)
- ✓ 400 tonnes of Methanol (*Named Substance* with lower-tier threshold 500 tonnes, upper tier threshold 5,000 tonnes, classified *Highly Flammable* and *Toxic*)
- ✓ 150 tonnes of Heptane meeting generic hazard category 7b *Highly Flammable* (lower-tier threshold 5,000 tonnes, upper tier threshold 50,000 tonnes) and also *R50/53* generic hazard category 9 (i) *Dangerous For The Environment* (100 and 200 tonnes thresholds)
- ✓ 10 tonnes of LPG (*Named Substance* with lower-tier threshold 50 tonnes, upper tier threshold 200 tonnes, classified *Extremely Flammable*)
- ✓ 1 tonne of miscellaneous substances meeting generic hazard category 8 *Extremely Flammable* (lower-tier threshold 10 tonnes, upper tier threshold 50 tonnes)
- ✓ 5 tonnes of miscellaneous toxic substances meeting generic hazard category 2 *Toxic* (lower-tier threshold 50 tonnes, upper tier threshold 200 tonnes)
- ✓ 150 tonnes of aqueous waste stream classified by operator as R51/53: "toxic to aquatic organisms..." and therefore meeting generic hazard category 9 (ii) *Dangerous For The Environment* (lower-tier threshold 200 tonnes, upper tier threshold 500 tonnes)

The sources of the information used is from the ECB website database of Annex 1 of the CPL. The information obtained for Ethylene Oxide, Methanol and Heptane is shown below

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General Information Specific Concentration Limits Seveso Data					
General Information					
Index number		Nota (alphanumeric)		Nota (numeric)	
603-023-00-X		E			
ATP inserted			ATP updated		
19					
Substances EN					
Sub	EC No	Cas No	Other Cas No	Name	Type
1	200-849-9	75-21-8		ethylene oxide oxirane	
Classification		Risk phrases	Safety phrases	Indication(s) of danger	
F+, R12 Carc. Cat. 2; R45 Muta. Cat. 2; R46 T; R23 Xi; R36/37/38		45 - 46 - 12 - 23 - 36/37/38	53 - 45	F+ T	
Symbol(s)					
 					
top					
Specific Concentration Limits					
Concentration			Classification		
top					
Seveso Data					
Seveso Substance		Main Seveso Category		Other Seveso Categories	
Yes (Named substance)		0		8-2	
Seveso Concentration			Categories		

General Information						
Index number		Nota (alphanumeric)		Nota (numeric)		
603-001-00-X						
ATP inserted			ATP updated			
19			25			
Substances						EN
Sub	EC No	Cas No	Other Cas No	Name	Type	
1	200-659-6	67-56-1		methanol		
Classification		Risk phrases		Safety phrases		Indication(s) of danger
F, R11 T, R23/24/25-39/23/24/25		11 - 23/24/25 - 39/23/24/25		1/2 - 7 - 16 - 36/37 - 45		F T
Symbol(s)						
 						
top						
Specific Concentration Limits						
Concentration			Classification			
C ≥ 20 %			T, R23/24/25-39/23/24/25			
10 % ≤ C < 20 %			T, R20/21/22-39/23/24/25			
3 % ≤ C < 10 %			Xn, R20/21/22-68/20/21/22			
top						
Seveso Data						
Seveso Substance		Main Seveso Category		Other Seveso Categories		
Yes (Named substance)		0		2-2-7b		
Seveso Concentration			Categories			
C ≥ 20 %			0-2			
10 % ≤ C < 20 %			0-2			
3 % ≤ C < 10 %						


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Index number	Nota (alphanumeric)	Nota (numeric)
601-008-00-2	C	4 6

ATP inserted	ATP updated
19	25

Substances						EN
Sub	EC No	Cas No	Other Cas No	Name	Type	
1	205-563-8	142-82-5		heptane [and isomers]		
2	203-548-0	108-08-7				
3	207-346-3	464-06-2				
4	209-230-8	562-49-2				
5	209-280-0	565-59-3				
6	209-643-3	589-34-4				
7	209-880-5	590-35-2				
8	209-730-6	591-76-4				
9	210-529-0	617-78-7				
10	250-610-8	31394-54-4				

Classification	Risk phrases	Safety phrases	Indication(s) of danger
F, R11 Xn, R65 Xi, R38 R67 N, R50-53	11 - 38 - 50/53 - 65 - 67	2 - 9 - 16 - 29 - 33 - 60 - 61 - 62	F Xn N

Symbol(s)


[top](#)

Specific Concentration Limits	
Concentration	Classification

[top](#)

Seveso Data		
Seveso Substance	Main Seveso Category	Other Seveso Categories
Yes	91	7b

Seveso Concentration	Categories

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The information can be represented in the following table:

Substance	Quantity stored	Named	Thresholds (in tonnes)							
			Named Sub		Toxics		Flammable		Environment	
			Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
Ethylene Oxide	3	Yes	5	50	5	50	5	50		
Methanol	400	Yes	500	5,000	500	5,000	500	5,000		
Heptane	150	No					5,000	50,000	100	200
LPG	10	Yes	50	200			50	200		
Misc F++	1	No					10	50		
Misc toxic	5	No			50	200				
Waste streams R51/53	150	No							200	500

Heptane is present above the lower qualifying threshold.

The rule must still be applied 3 times:

Ethylene Oxide

1. Named subs and toxic

For Lower-tier $3/5 + 400/500 + 5/50$
1.5
For Upper-tier $3/50 + 400/5,000$
 $+ 5/200$
0.165

- So qualifies as a lower-tier site.

2. Named subs and Flammables

For Lower-tier $3/5 + 400/500 + 150/5,000$
 $+ 10/50 + 1/10$
1.73
For Upper-tier $3/50 + 400/5,000 + 150/50,000$
 $+ 10/200 + 1/50$
0.213

- So qualifies as a lower-tier site.

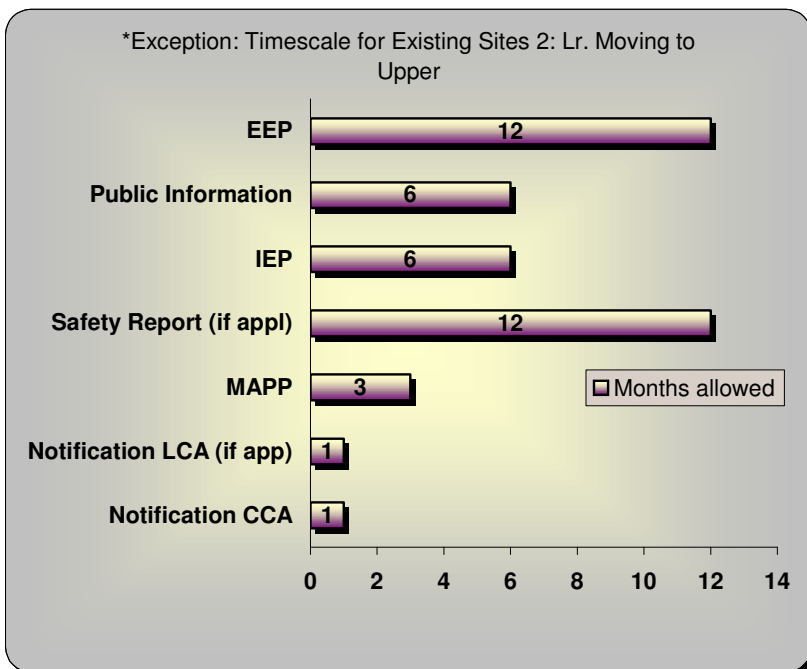
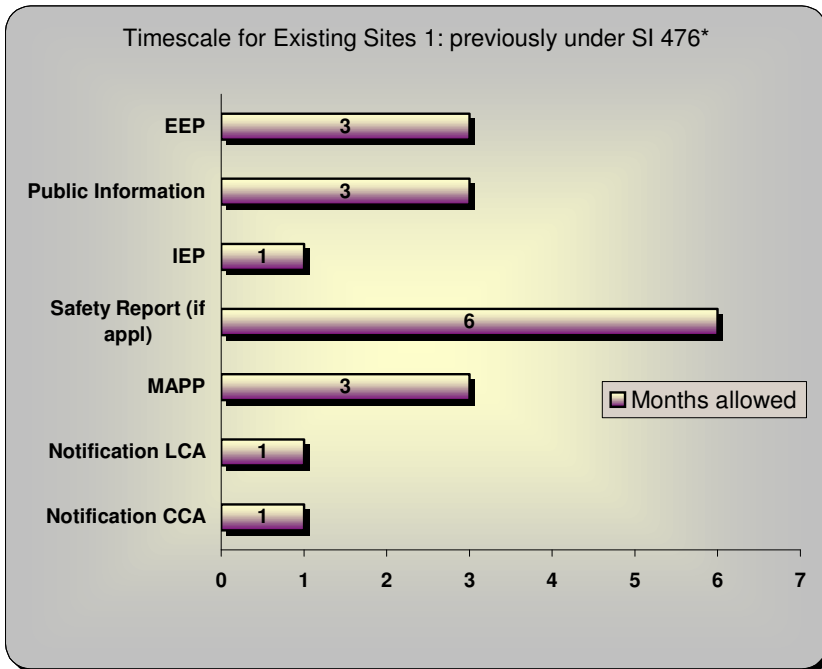
3. Dangerous for the environment

For Lower-tier $150/100 + 150/200$
2.25
For Upper-tier $150/200 + 150/500$
1.05

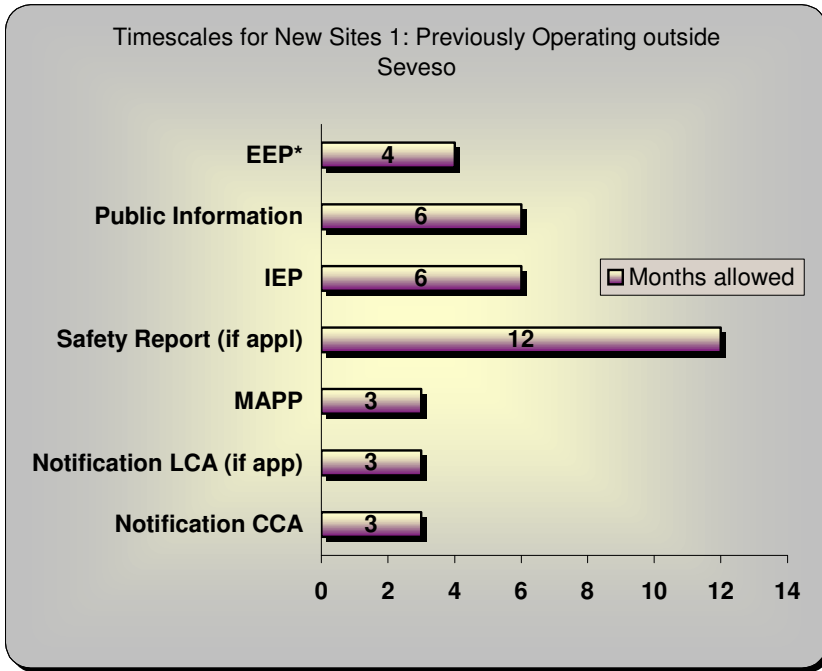
- So qualifies as an Upper-tier site.

APPENDIX 4 - TIMELINES FOR ESTABLISHMENTS

Existing Establishments



New Establishments



* or by Feb 14, 2007: whichever is the later.

