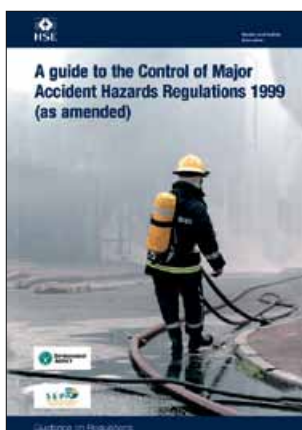


A guide to the Control of Major Accident Hazards Regulations 1999 (as amended)

Guidance on Regulations



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This revised guidance on the COMAH Regulations gives detailed advice on the scope of the Regulations and the duties imposed by them. The guidance is aimed at operators of establishments that are covered by the Regulations but will also be useful to others with duties under the Regulations, for example local authorities and emergency services.

The aim of the COMAH Regulations is to prevent and mitigate the effects on people and the environment of major incidents involving dangerous substances.

The amendments broaden the scope of COMAH through changes to Part 2 and Part 3 of Schedule 1. The changes reflect lessons learned from major accidents in Europe since COMAH was introduced and the results of EC working groups on carcinogens and substances dangerous for the environment.

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This guidance is issued by the Health and Safety Executive on behalf of the COMAH Competent Authority. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors and Environmental Officers seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

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Notes on the COMAH Regulations

Introduction

1 The Control of Major Accident Hazards Regulations 1999 (COMAH) as amended by the Control of Major Accident Hazards (Amendment) Regulations 2005 implement the Seveso II Directive (96/82/EC) as amended by Directive 2003/105/EC in Great Britain (Northern Ireland produces its own regulations), except for land-use planning requirements which are implemented by changes to planning legislation. The COMAH Regulations came into force on 1 April 1999 and the amending Regulations on 30 June 2005. Their aim is to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any accidents which do occur.

2 This revised publication updates the guidance published when the COMAH Regulations were introduced in 1999 and gives detailed advice about the scope of, and duties imposed by, the Regulations. It is aimed at operators of establishments that are covered by the Regulations but will also be useful to others with duties under the Regulations, for example local authorities and emergency services.

3 Some of the provisions in the original COMAH Regulations were included to provide a transition period between previous regulations (the Control of Industrial Major Accident Hazards Regulations (CIMAH)) and the new ones but they are no longer relevant as the transition periods are now finished. However, those provisions have not been revoked, because the 2005 amendments were not intended as a complete revision. Consequently, there are still some references to CIMAH in the Regulations which will not be revoked until the Regulations are fully revised at some future date.

Competent authority

4 A key feature of the COMAH Regulations is that they are enforced by a competent authority comprising the Health and Safety Executive (HSE) and the Environment Agency (EA) in England and Wales, and HSE and the Scottish Environment Protection Agency (SEPA) in Scotland. Operators will generally receive a single response from the competent authority on all matters to do with COMAH. Further details about the competent authority and the practical arrangements are given in paragraphs 29-33. In this guidance, the EA and SEPA are referred to collectively as 'the Agencies'.

Origins of the Regulations

5 It has been recognised for many years that certain industrial activities involving dangerous substances have the potential to cause accidents. Some of these accidents may give rise to serious injury to people or damage to the environment both close to, and further away from, the site of the accident. Such activities have come to be known as major accident hazards.

Flixborough

6 In Great Britain, the approach to major hazards was profoundly influenced by a disastrous explosion at a chemical plant at Flixborough in 1974. The plant was destroyed, 28 workers were killed and there was extensive damage to property off site. Following that accident, a committee of experts, the Advisory Committee on Major Hazards, was appointed by the Health and Safety Commission to consider the problems of major accident hazards and make recommendations. They proposed a three-part strategy:

- (a) identification of the sites;
- (b) control measures to prevent major accidents; and
- (c) mitigatory measures to limit the effects of any accidents which do occur.

Europe

7 A number of major accidents occurred in Europe during the 1970s, the most significant of which took place in Seveso, Italy, in 1976. Here, the accidental production and release of a dioxin as an unwanted by-product from a runaway chemical reaction led to widespread contamination. Such incidents, and the recognition of the differing standards of controls over industrial activities within the European Community, led the European Commission to propose a Directive on the control of major industrial accident hazards. The three-part strategy proposed in the UK was highly influential in shaping the Directive.

8 The Directive on the Major Accident Hazards of Certain Industrial Activities (82/501/EEC) was adopted on 24 June 1982, and is generally known as the Seveso Directive. It was implemented in Great Britain by the 1984 CIMAH Regulations.

9 There were two amendments to the Directive, both of which resulted in amendments to the CIMAH Regulations.

10 Later, the European Commission undertook a complete review of the Directive and, as a result of this, published a completely new one, now known as Seveso II.

The Seveso II Directive

11 The Seveso II Directive retained the basic principles of major accident hazard controls set out in the original Seveso Directive but addressed some weaknesses and omissions. The new Directive followed a review carried out by the European Commission in conjunction with the Committee of Competent Authorities for the Seveso Directive (made up of representatives of all Member States' governmental bodies enforcing the Seveso Directive). It came into force on 3 February 1997 and was implemented in Great Britain on 1 April 1999 by the COMAH Regulations, except for land-use planning requirements which were implemented by changes to planning legislation.

12 The new Directive:

- (a) simplified the criteria which determine application;
- (b) removed some exemptions, such as chemical hazards at nuclear installations, and explosives;
- (c) placed greater emphasis on the need for effective safety management systems and for human factors, including human reliability issues, to be addressed; and
- (d) placed specific duties on the competent authority.

The Seveso II amending Directive

13 An amending Directive (2003/105/EC) came into force on 31 December 2003. This was introduced to broaden the scope of the original Seveso II Directive to take account of lessons learned following three major accidents in Europe. In addition, the list of named carcinogens was expanded, with revised qualifying quantities, and the thresholds for substances dangerous for the environment were reduced. At the same time, diesel and some other oil-derived products were placed with automotive petrol under a new named entry, petroleum products.

14 The amending Directive was implemented by changes to the COMAH

Regulations. These came into force on 30 June 2005.

Application of the Regulations

15 The flow chart in Figure 1 (see page 8) shows how to establish whether the Regulations apply. Basically, an establishment having any substance specified in Schedule 1 present at or above the qualifying quantity is subject to the Regulations. There are two thresholds, known as lower-tier and top-tier. Further details can be found in the guidance to Schedule 1 which lists a number of substances by name in Part 2 and ten generic categories in Part 3. The categories are based on the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP) which are amended from time to time, and the amendments can affect the application of the COMAH Regulations.

16 Schedule 1 contains rules for aggregating sub-threshold quantities of dangerous substances in the same or similar generic categories and for excluding amounts less than 2% of their threshold, if they are located so that they cannot initiate an incident elsewhere on site. Some examples of how these two provisions work are given in Appendix 2.

17 Even if there are no threshold quantities of substances present at an establishment, that establishment may still be subject to the Regulations if specified dangerous substances could be produced in threshold quantities as a result of loss of control of an industrial chemical process (this is what happened in the accident at Seveso, mentioned earlier). See guidance to Schedule 1 (paragraph 410) for further details.

Requirements of the Regulations

18 As mentioned above, the Regulations operate at two levels, depending on the quantities of dangerous substances at an establishment. It is important to note that the Regulations apply to establishments rather than individual activities, as was the case with CIMAH. Detailed guidance on each of the requirements listed below can be found under the relevant regulation.

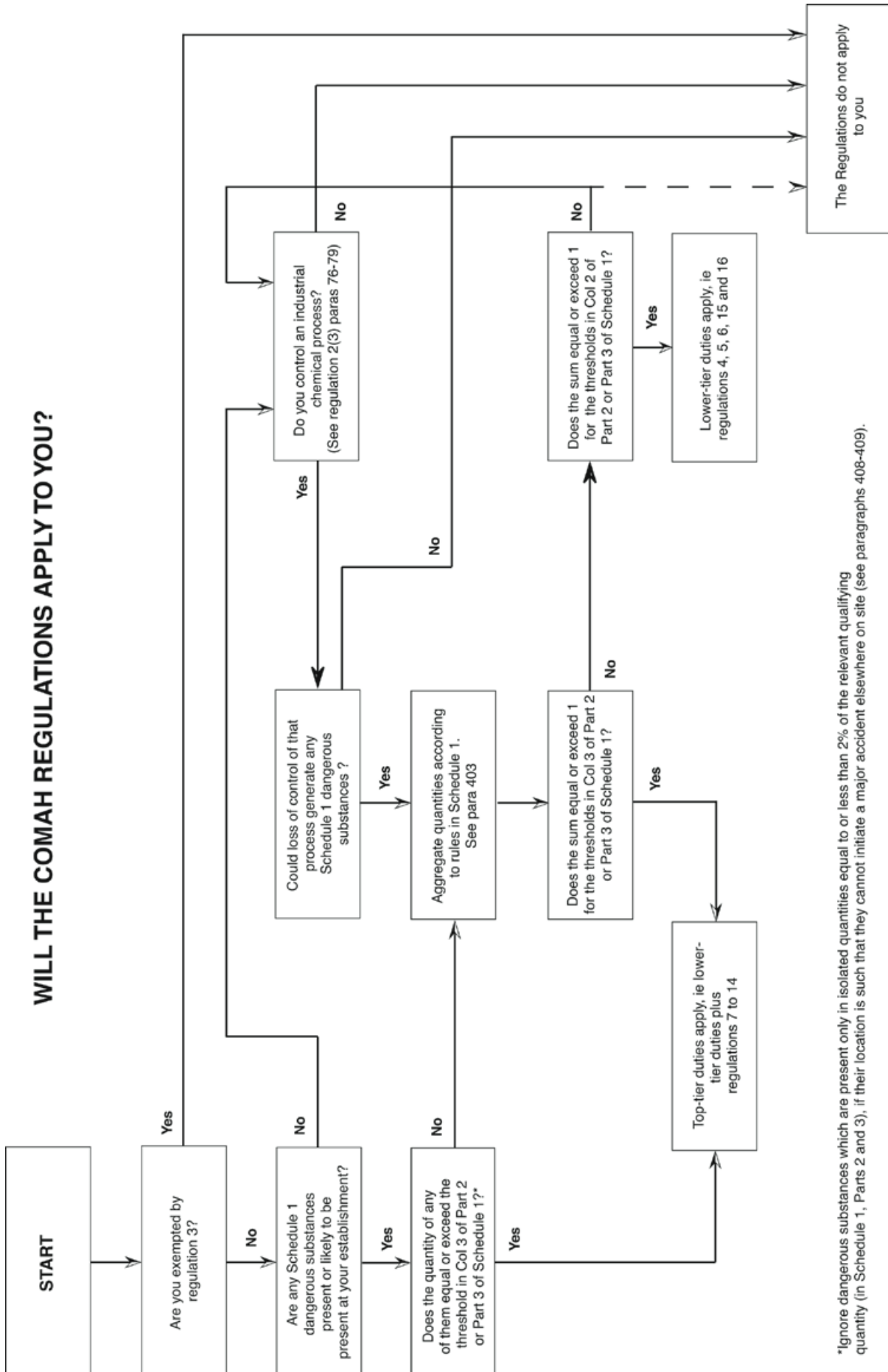
Lower-tier duties

19 If the lower-tier threshold is equalled or exceeded, operators must notify the competent authority by providing the details in Schedule 3. Notification should be to the local HSE office which will pass the details to the relevant EA/SEPA office. Lower-tier operators must also take 'all measures necessary' to prevent major accidents and report any that do occur.

20 An important duty on lower-tier operators is the preparation of a Major Accident Prevention Policy (MAPP). This duty reflects the vital role of management systems in accident prevention. The essential elements of a safety management system (SMS) which must be addressed by the MAPP are given in Schedule 2, starting with the company policy on major accidents, and then detailing the organisational structure, responsibilities, procedures etc for implementing it. Many of the elements in the Schedule relate to human factors, which run through any SMS.

21 Operators in the process industries will be familiar with the requirements of the Health and Safety at Work etc Act 1974 (HSW Act) and the Management of Health and Safety at Work Regulations 1999 (MHSWR) which require, respectively, safety policies and risk assessments, covering the whole range of health and safety risks. The MAPP will be able to build on work done, and documentation prepared, to satisfy these requirements. More details can be found in the guidance to regulation 5 and in Schedule 2.

WILL THE COMAH REGULATIONS APPLY TO YOU?



*Ignore dangerous substances which are present only in isolated quantities equal to or less than 2% of the relevant qualifying quantity (in Schedule 1, Parts 2 and 3), if their location is such that they cannot initiate a major accident elsewhere on site (see paragraphs 408-409).

Top-tier duties

22 If any top-tier threshold is equalled or exceeded, the operator must also comply with regulations 7 to 14. Regulation 7 requires operators to submit a written safety report. Operators planning to build new top-tier establishments must submit information before construction and wait for the competent authority's response before starting to build safety-critical parts of the establishment. This is to ensure that safety is considered fully at the design stage. Regulations 9-13 cover emergency planning requirements, including the need to test both on-site and off-site emergency plans, and arrangements for charging by local authorities for preparing and testing off-site plans. Additional guidance is available on emergency planning (HSG191).¹ Regulation 14 covers information which operators must give to the public. The competent authority makes safety reports available to the public in public registers (see regulation 21(4) and Schedule 8).

23 Appendix 3 sets out the timescales for complying with requirements for MAPPs, notifications, safety reports and on-site emergency plans with reference to regulations 2, 5, 6, 7 and 9.

Consulting employees and/or safety representatives

24 The COMAH Regulations specifically require operators to consult their employees or employees' representatives, and others working in the establishment, about the preparation of the on-site emergency plan (regulation 9(3)). Proper consultation with those who do the work is crucial in helping to raise awareness of the importance of health and safety and environmental protection. It can make a significant contribution to creating and maintaining a safe and healthy working environment and an effective health and safety culture. In turn, this can benefit the business, making it more efficient by reducing the number of accidents and the number of work-related ill-health incidents. Employees can also have an important role in identifying the features of value in the environment around the establishment; many will live locally and will have a specific interest in, and knowledge of, the area. Safety representatives' commitment and experience of workplace conditions means they may well identify any situations where prompt action may lead to a healthier and safer workplace. They also have an important part to play in explaining or 'selling' safety measures to the workforce. Safety procedures are effective only if those involved understand the reason for them and are actively involved in developing and reviewing them. If they don't, the procedures may be by-passed.

25 In addition to this specific COMAH requirement, there are other, general requirements for employers to consult safety representatives appointed by recognised trade unions under the Safety Representatives and Safety Committee Regulations 1977. Any groups of employees not covered by such representatives must also be consulted, either directly or indirectly, through elected representatives of employee safety under the Health and Safety (Consultation with Employees) Regulations 1996. More information on an employer's duties under these Regulations is contained in HSE's leaflet *Consulting employees on health and safety: A guide to the law*.² These arrangements for consultation on health and safety are compulsory in respect of employees, but it is good practice, and common sense, to consult all those who work at the same location, including, for example, contract workers.

26 The MAPPs and safety reports required by COMAH will be of particular interest to employees or their representatives, and operators should make copies of these documents available to them. When the competent authority receives the safety report it will ask operators to tell employee representatives that it has received it and give them the name of the assessment manager for the report. If the competent authority finds serious deficiencies in the report, it will copy to employee

representatives any letter to the operators informing them of this. Similarly, the letter informing the operator of the conclusions of the assessment of the safety report will be copied by the competent authority to employee representatives.

Self-employed people

27 Although only the courts can give an authoritative interpretation of the law, in considering the application of these Regulations and guidance to people working under another's direction, the following should be considered.

28 If people working under the control and direction of others are treated as self-employed for tax and national insurance purposes they may nevertheless be treated as their employees for health and safety purposes. It may therefore be necessary to take appropriate action to protect them. If any doubt exists about who is responsible for the health and safety of a worker this could be clarified and included in the terms of a contract. However, remember, a legal duty under section 3 of the HSW Act cannot be passed on by means of a contract and there will still be duties towards others under section 3 of the HSW Act. If such workers are employed on the basis that they are responsible for their own health and safety, legal advice should be sought before doing so.

Competent authority

29 HSE had been the competent authority under CIMAH but, when the COMAH Regulations were introduced, a new competent authority was set up consisting of HSE and the EA (in England and Wales) and HSE and SEPA (in Scotland). The objective was to achieve high levels of protection from major accidents for both people and the environment. The arrangements ensure that:

- (a) appropriate expertise on health and safety and the environment is brought to bear on the regulation of major hazards;
- (b) the activities of HSE and the Agencies, in relation to duties under the Regulations, are co-ordinated, consistent, transparent, targeted and proportionate;
- (c) the possibility of conflicting requirements being placed on operators is eliminated; and
- (d) HSE and the Agencies will collaborate on issues of joint interest, so avoiding duplicating activity for themselves and for operators.

30 The working arrangements are set out in a memorandum of understanding, copies of which are available on request from the competent authority.

31 There are many aspects of an operator's activities which do not relate exclusively to protection of either people or the environment. Co-ordinating the operational implementation of COMAH by HSE and the Agencies is, therefore, crucial.

32 For key regulatory activities which require action by the competent authority, such as:

- (a) assessing safety reports;
- (b) applying derogation procedures; and
- (c) designating domino-effect establishments;

the operator will make a single submission or application and receive a single response agreed between HSE and the Agencies.

33 HSE and the Agencies will discuss and exchange inspection programmes

for establishments subject to COMAH. Inspections relating to COMAH will be co-ordinated to avoid duplication of effort.

Overlap with environmental legislation

34 Some of the establishments regulated under the COMAH Regulations are also regulated by the Agencies under the Pollution Prevention and Control Act (PPC) 1999 or Part I of the Environmental Protection Act 1990 (EPA 90). The existing regime under EPA 90 is gradually being replaced by the PPC regime and will be fully replaced by 2007. Although at first sight the purpose of the COMAH Regulations (the prevention of major accidents) is quite different from that of IPC/PPC or LAPC (the prevention of pollution), the means to achieve both are almost identical. Both require industry to have good management systems to control risk. PPC includes a specific duty to prevent and mitigate accidents to the environment. This is complementary to the main COMAH duty. The Agencies manage this overlap between their different regimes following the principle that accident prevention work on COMAH sites is generally more significant because of the greater risks.

35 HSE and the Agencies work closely to avoid potential conflicts between the requirements of COMAH and the general requirements in EPA 90 or PPC. For EPA 90 this is to use the Best Available Techniques Not Entailing Excessive Cost (BATNEEC) to prevent pollution. For PPC this is using the best available techniques to prevent pollution. HSE and the Agencies make full use of the COMAH memorandum of understanding, statutory consultation and agreed administrative procedures to ensure consistent decision-making. These mechanisms also ensure that statutory periods for making decisions within EPA 90 or PPC are met. Industry is strongly encouraged to involve HSE and the Agencies in any discussion on new processes or significant modifications to existing ones.

PART 1: INTRODUCTION

Regulation

1

Regulation 1 Citation and commencement

These Regulations may be cited as the Control of Major Accident Hazards Regulations 1999 and shall come into force on 1st April 1999.

Guidance

1

36 These Regulations, which are referred to in this document as COMAH, relate to the identification, prevention and mitigation of major accidents to people and the environment. They implement the Seveso II Directive, and the amending Directive, in Great Britain, except for Article 12 which is implemented by planning legislation.³ The guidance in this document contains many references to safety, including health, safety and environmental protection. The Regulations were amended by the Control of Major Accident Hazards (Amendment) Regulations 2005 and this guidance relates to the amended Regulations. The Regulations shown in this publication are a consolidated version and are not available from the Stationery Office in this form.

37 The Seveso II Directive is implemented in Northern Ireland by separate regulations.

Regulation

2(1)

Regulation 2 Interpretation

(1) *In these Regulations, unless the context otherwise requires -*

“the 1974 Act” means the Health and Safety at Work etc. Act 1974;

“the 1984 Regulations” means the Control of Industrial Major Accident Hazards Regulations 1984^(a);

(a) SI 1984/1902; amended by SI 1988/1462, SI 1990/2325 and SI 1994/118.

Guidance 2(1)

38 The Control of Industrial Major Accident Hazards Regulations 1984 are referred to in this document as CIMAH.

Regulation

2(1)

“the Agency” in relation to an establishment in -

- (a) England and Wales, means the Environment Agency,*
- (b) Scotland, means the Scottish Environment Protection Agency;*

“CIMAH report” means a report sent to the Executive pursuant to regulations 7 or 8 of the 1984 Regulations;

Guidance 2(1)

39 This is particularly relevant to regulation 7(10) which enables a CIMAH top-tier operator to submit the establishment’s COMAH safety report in parts.

Regulation (1)

“competent authority” means the Executive and the Agency acting jointly;

Guidance

2(1)

40 In England and Wales the competent authority consists of HSE and the Environment Agency (EA); in Scotland it is HSE and the Scottish Environment Protection Agency (SEPA). Throughout this guidance, the Executive together with the EA or SEPA are referred to as the competent authority.

41 The way in which HSE and the Agencies work together is set out in a memorandum of understanding.

Regulation

2(1)

“control” in relation to a person means control in the course of a trade, business or other undertaking carried on by him;

“dangerous substance” means (subject to regulation 3(3)(b)) a substance, mixture or preparation -

- (a) listed in column 1 of Part 2 of Schedule 1, or,*
- (b) within a category specified in column 1 of Part 3 of Schedule 1, and present as a raw material, product, by-product, residue or intermediate;*

Guidance

2(1)

42 A substance is dangerous for the purposes of these Regulations if it is named in Part 2 of Schedule 1 or falls within a generic category specified in Part 3 of Schedule 1. The generic categories in Part 3 are based on those defined in the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (as amended) (CHIP) which implement the classification Directives referred to in the Seveso II Directive.

43 A dangerous substance has to be present as a ‘raw material, product, by-product, residue or intermediate’. This qualification is widely drawn so that almost any presence is within scope. It therefore includes establishments which use liquid petroleum gas (LPG) as a fuel or which store waste materials. However, asbestos sheeting and sprayed coatings, which are sometimes used as construction materials in plant and buildings and are classified toxic, are not covered.

Regulation

2(1)

“the Directive” means Council Directive 96/82/EC^(a) on the control of major accident hazards involving dangerous substances as amended by Directive 2003/105/EC^(b) of the European Parliament and of the Council of 16 December 2003;

- (a) OJ L10/13 14.1.97*
- (b) OJ L345/97 31.12.2003*

Guidance 2(1)

44 This is referred to as the Seveso II Directive.

Regulation

2(1)

“emergency services” means -

- (a) those police, fire and ambulance services who are liable to be required to respond to an emergency at the establishment,*
- (b) where appropriate, Her Majesty’s Coastguard;*

“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 under the control of the same person and separated only by a road, railway or inland waterway shall be treated as one whole area;

Guidance

2(1)

45 The concept of ‘establishment’ is important. It means any installation or collection of installations which are within an area of land under the control of the same person or body. For example, a large industrial chemical complex may consist of several plants, under different ownership. The plants may be difficult to distinguish geographically by, say, a dividing fence and might even be interconnected, but they are different establishments for the purpose of these Regulations. In distinguishing one establishment from another it is essential to establish who exactly has control. Responsibilities of different operators in these circumstances are likely to have been considered already in relation to health, safety and environmental legislation and for business purposes.

Guidance

46 An operator has to consider all activities which might be relevant to major accidents within the establishment. This includes not just the installations which handle dangerous substances but also all the related infrastructures such as pipework and internal transportation which could be relevant to a major accident.

2(1)

47 The clause relating to separation by a road etc is to avoid operators of what are in reality single establishments having to duplicate the production of such things as safety reports where safety management systems (SMSs) might be common to both areas.

Regulation

2(1)

“the Executive” means the Health and Safety Executive;

“existing establishment” shall be construed in accordance with paragraph (7);

48 For details of what constitutes an ‘existing establishment’ see the guidance following regulation 2(7).

Regulation

2(1)

“hazardous substances consent” means a hazardous substances consent granted under the Planning (Hazardous Substances) Act 1990^(a) or the Planning (Hazardous Substances) (Scotland) Act 1997;^(b)

“health authority” means—

- (a) in relation to England, a Primary Care Trust established under section 16A of the National Health Service Act 1977;*
- (b) in relation to Wales, a Health Authority established under section 8 of that Act; and*
- (c) in relation to Scotland, a Health Board established under section 2 of the National Health Service (Scotland) Act 1978;*

“industrial activity” has the same meaning as in the 1984 Regulations;

(a) 1990 c.10.

(b) 1997 c.10.

Guidance

2(1)

49 This definition of ‘industrial activity’ is only relevant in the context of regulations which refer to CIMAH, ie COMAH regulations 7(10), 9(2)(a), 17(2) and 24.

Regulation

2(1)

“installation” means a unit in which dangerous substances present are, or are intended to be, produced, used, handled or stored, and it includes -

- (a) equipment, structures, pipework, machinery and tools,*
- (b) railway sidings, docks and unloading quays serving the unit, and*
- (c) jetties, warehouses or similar structures, whether floating or not, which are necessary for the operation of the unit;*

Guidance

2(1)

50 The definition of ‘installation’ is broad. It includes storage and is not restricted to a processing or handling activity nor to buildings or particular types of plant. It encompasses all the supporting infrastructures which are connected to the parts of the establishment where dangerous substances are primarily used, handled or stored.

Regulation

"local authority" means -

- (a) for the purposes of regulation 14, in relation to -
- (i) the City of London, the Common Council for the City of London;
 - (ii) an area in the rest of London, the London Borough Council for that area;
 - (iii) the Isles of Scilly, the Council of the Isles of Scilly;
 - (iv) an area in the rest of England, the district council for that area or where there is no district council for that area, the county council for that area;
 - (v) an area in Scotland, the council for the local government area, and
 - (vi) an area in Wales, the county council or the county borough council for that area;
- (b) for the purposes of other regulations, in relation to -
- (i) London, the London Fire and Emergency Planning Authority;
 - (ii) an area where there is a fire and civil defence authority, that authority;
 - (iii) the Isles of Scilly, the Council of the Isles of Scilly;
 - (iv) an area in the rest of England, the county council for that area, or where there is no county council for that area, the district council for that area;
 - (v) an area in Scotland, the council for the local government area;
 - (vi) an area in Wales, the county council or the county borough council for that area;

2(1)

Guidance

51 Local authorities have duties in connection with the preparation, review, revision and testing of off-site emergency plans and they are also involved in the dissemination of operators' safety information to the public. This regulation defines 'local authority' for these purposes.

52 The duty holder for off-site emergency plans (regulations 10 to 13) and the local authority for dissemination of information (regulation 14) is the Council of the Isles of Scilly within the Isles of Scilly, the council for the local government area in Scotland, and the county council or county borough council for that area in Wales.

53 In London, the duty holder for off-site emergency plans is the London Fire and Emergency Planning Authority, and the local authority for dissemination of information is the Common Council for the City of London and the London Borough Councils.

54 In the rest of England:

- (a) in areas where there is a fire and civil defence authority, the duty holder for off-site emergency plans is the fire and civil defence authority, and the local authority which is involved in the dissemination of information is the metropolitan district council;
- (b) in areas where there is both a county council and district council, the duty holder for off-site emergency plans is the county council, and the local authority which is involved in dissemination of information is the district council;
- (c) in areas where there is a county council operating without a district council (known as a unitary authority), that council is both the duty holder for off-site emergency plans and the local authority which is involved in dissemination of information; and
- (d) in areas where there is a district council operating without a county council,

2(1)

Guidance

2(1)

and there is no fire and civil defence authority (known as a unitary authority), that council is both the duty holder for off-site emergency plans and the local authority which is involved in dissemination of information.

Regulation

2(1)

“major accident” means an occurrence (including in particular, a major emission, fire or explosion) resulting from uncontrolled developments in the course of the operation of any establishment and leading to serious danger to human health or the environment, immediate or delayed, inside or outside the establishment, and involving one or more dangerous substances;

Guidance

55 The term ‘major accident’ appears in a number of important places in the Regulations. The COMAH regime is concerned only with accidents which involve dangerous substances and have the potential for serious danger to people or the environment. For example, a fatality to a pedestrian involved in a road accident with a chlorine road tanker inside a COMAH establishment would not be a COMAH major accident. However, if the tanker was involved in an incident on site which led to a potentially harmful release of chlorine, it would be a major accident.

56 The term ‘major accident’ does not include less serious accidents or other incidents such as authorised discharges of pollutants as part of the normal operation of plant.

57 An occurrence will be a major accident if it meets the following conditions:

- (a) it results from uncontrolled developments at an establishment to which the Regulations apply; and
- (b) it leads to serious danger to people or to the environment, on or off site; and
- (c) it involves one or more dangerous substances defined in the Regulations, irrespective of the quantity involved.

58 An uncontrolled development in the course of the activity may be due to on-site or off-site factors which the operator is unable to influence or, alternatively, has lost the opportunity to influence or control. Off-site factors could, for example, be adverse weather conditions such as flooding. Uncontrolled developments originating on site would be events which escalate so that they are beyond the normal span of operating problems over which control may be exercised.

59 The occurrence must have the potential to cause serious danger but it is not necessary for the danger to result in harm or injury. It is the potential which is relevant.

60 Whether an event leads to serious danger will depend on factors specific to the activity and the incident. For instance, if a substance toxic to people or the environment is released from its primary containment through a purpose-built scrubbing system, this may not lead to serious danger, even though it was an uncontrolled development. However, the same release direct to the atmosphere might, and would then count as a major accident.

61 Serious danger to people means a risk of death, physical injury or harm to health. For example, this could be considered as involving:

- (a) severe distress to almost everyone;
- (b) a substantial number requiring medical attention;
- (c) some people seriously injured, requiring prolonged treatment; and
- (d) the death of any highly susceptible people.

62 As indicated in paragraph 59, any incident producing serious danger will have the potential to cause death but it will not necessarily do so. The effect may

2(1)

Guidance

be immediate or delayed. For example respiratory distress may follow some hours after exposure to a toxic gas. There may be other circumstances when the harm occurs even further in the future. A small number of carcinogens are listed in Schedule 1, Part 2, and the effects of exposure in a major accident could manifest themselves much later. The important point is that the harm arose from a single acute exposure, release or event.

63 An incident will also be a major accident if it results in serious danger to the environment. Again, the occurrence will be sudden, unexpected and unplanned. There will be serious danger, whether realised or potential, of significant damage to the natural or man-made environment. The effect may be immediate or delayed and may sometimes be relatively long-lasting but not necessarily irreversible. Operators need to consider the potential for widespread loss or damage to the general environment as well as the risk of adverse effects on a rare, unique or otherwise valued component of our natural or man-made environment. Therefore, information about the important features on a COMAH establishment and its environs will need to be compiled. This will generally form part of the safety report for top-tier operators.

64 Guidance on interpretation of 'major accident to the environment' for the purposes of developing safety report scenarios and emergency plans under these Regulations has been developed by the competent authority.⁴ Exact definitions of changes in the environment caused by an event at an establishment that would constitute a major accident to the environment do not exist. However, the more extensive the areas and quantities of natural and semi-natural resource damaged, the longer the effects are likely to last, and the more intense or severe these effects, then the more likely it is that the event will be regarded as a major accident by the competent authority.

65 Serious danger to the environment could be considered as including accidents with the potential to result in:

- (a) the death or adverse effects on local populations of species or organisms, with lower thresholds for high-value or protected species;
- (b) significant contamination of drinking water supplies, ground or groundwater;
- (c) damage to designated areas, habitats or populations of species within the areas;
- (d) damage to listed buildings;
- (e) permanent or long-term damage to widespread habitats;
- (f) significant or long-term damage to the marine or aquatic environment.

2(1)

Regulation

“major accident prevention policy document” shall be construed in accordance with regulation 5(1);

“notify” means notify-

- (a) in writing, including in an email or;*
- (b) by such other means as the recipient may allow,*

2(1)

and “notification” shall be construed accordingly;

Guidance
2(1)

66 E-mail messages are an acceptable form of notification but text messages are not.

Regulation

“off-site emergency plan” shall be construed in accordance with regulation 10(1);

“on-site emergency plan” shall be construed in accordance with regulation 9(1);

“operator” shall be construed in accordance with paragraph (2);

“pipeline” means a pipeline to which the Pipelines Safety Regulations 1996 applies^(a);

2(1)

(a) SI 1996/825.

Guidance
2(1)

67 Any pipeline, or part of a pipeline, which is subject to the Pipelines Safety Regulations 1996 is outside the scope of COMAH. This definition is relevant to regulation 3(2)(b).

Regulation

“road” means -

- (a) in relation to England and Wales, a road within the meaning of section 192(1) of the Road Traffic Act 1988^(a);*
- (b) in relation to Scotland, a road within the meaning of the Roads (Scotland) Act 1984^(b);*

“safety report” means a report sent to the competent authority pursuant to regulation 7 or a part of a report sent to the competent authority pursuant to regulation 7(10) except that where any such report or part has been revised pursuant to regulation 8, it means the report or part as so revised.

2(1)

*(a) 1998 c.52.
(b) 1984 c.54.*

Guidance

2(1)

68 The term ‘safety report’ includes an installation-specific part of a safety report, a core safety report (see paragraph 196) or a combination of these as well as a complete report. It is also important to note that it means the latest version of the report. So, for example, where Schedule 8 says that the safety report will be placed on the public register, it means the latest version.

Regulation

2(2)

(2) Any reference in these Regulations to an operator is a reference to a person who is in control of the operation of an establishment or installation (or in relation to an establishment or installation which is to be constructed or operated, the person who proposes to control its operation or, if that person is not known, the person who in the course of a trade, business or other undertaking carried

Regulation

2(2)

on by him has commissioned its design and construction); and any duty imposed by these Regulations on him shall extend only in relation to that establishment or installation.

Guidance

2(2)

69 The main duties within the Regulations are on operators. This reflects the fact that the application of COMAH is not restricted to industrial activities and the narrow range of storage facilities which were within the scope of CIMAH.

70 A 'person' may be an individual, a corporate body or a partnership. Any of these could be in control of an establishment within the scope of these Regulations.

71 The reference to a person who commissions the design or construction of an establishment or installation is to ensure the correct identification of those with responsibility for the submission of safety reports before construction. Safety report submissions are dealt with under regulation 7.

Regulation

2(3)

(3) Any reference in these Regulations to the presence of dangerous substances includes a reference to the anticipated presence of such substances and the presence of those which it is reasonable to believe may be generated during the loss of control of an industrial chemical process.

Guidance

2(3)

72 There are two features of this regulation which are worth special note.

Anticipated presence

73 Operators need to take account of the presence and anticipated presence of dangerous substances at their establishments in determining whether the Regulations apply to their activities. Estimates of the maximum anticipated quantity present at any one time for each substance or preparation should, therefore, take account of inventory variations which may occur because of seasonal demand, fluctuations in business activity etc, or dangerous substances which may sometimes be present but not at other times. Operators from the storage and batch manufacturing sectors face frequent inventory fluctuations and do not always have long notice of the delivery of substances. They should plan on the basis of ceiling quantities of each generic category of substance they will have on site together with, where possible, indications of some of the typical named substances handled. They should consider whether these ceiling quantities, appropriately aggregated, bring them within scope. If so, they should notify the ceilings (see regulation 6, paragraph 148) and then not go beyond them unless they submit a new notification and, in the case of top-tier establishments, review, and, if necessary, revise their safety report as required by regulation 8(4). In these circumstances, operators must pitch their prevention and mitigation measures at the most hazardous substances they handle.

74 If an operator chooses to keep the total inventory of dangerous substances below the threshold quantities to avoid, or limit, application of the Regulations, any future increase in inventories to, or above, the threshold levels would not be permitted until the Regulations have been complied with. In particular a notification, and, if applicable, a safety report, would have to be submitted in reasonable time before making those increases. See also guidance on regulation 7.

75 It may be appropriate for operators to relate anticipated presence either to quantities of dangerous substances which they have consent to hold under the Planning (Hazardous Substances) Act 1990 (PHSA) or, in Scotland, the Planning (Hazardous Substances) (Scotland) Act 1997, or to the quantity which can be manufactured or stored in accordance with a licence granted under the Manufacture and Storage of Explosives Regulations 2005. However, some

Guidance

operators have consent or a licence for quantities much larger than they anticipate ever being present. In these circumstances the consent or licence quantity may not be appropriate.

Substances which may be generated during the loss of control

76 When deciding whether the Regulations apply to them, operators also need to consider substances which may be generated during the loss of control of an industrial chemical process. The aim here is to extend application of the Regulations to those establishments which do not normally have, or anticipate having, specified dangerous substances present at, or above, threshold quantities, but which could generate them in quantities above the thresholds during an accident. The inclusion of substances 'generated during the loss of control of an industrial chemical process' may bring within the scope of the Regulations some operators who would otherwise be outside them.

77 This requirement has its origin in the incident at Seveso in 1976, which led to the original Seveso Directive. This incident was caused when a reaction between two relatively innocuous chemicals went wrong. A third chemical, a dioxin named TCDD, was generated and released, resulting in a major accident.

78 The need to consider accidental production of substances covered by these Regulations is qualified by the term 'loss of control of an industrial chemical process'. 'Loss of control' excludes expected/planned/permitted discharges. 'Industrial chemical process' prevents premises which do not involve a chemical process being brought into scope solely because of dangerous substances generated during an accident. For example, a warehouse holding non-dangerous substances or sub-threshold quantities of dangerous substances would not be brought into the scope of the Regulations solely because a fire in the warehouse might generate dangerous substances in threshold quantities. However, if such a warehouse is already subject to the Regulations because dangerous substances are present above threshold quantities, the operator must consider the effect of a fire and the products of that fire when deciding on the measures necessary for regulation 4 (and regulations 7-12 if applicable).

79 Where an industrial chemical process is involved, the operator will need to establish what substances might be produced during an accident and in what quantities. This will not be an easy task but existing risk assessments produced under the Health and Safety at Work etc Act 1974 (HSW Act) or the Management of Health and Safety at Work Regulations 1999 (MHSWR) should be used as a starting point as these should indicate what substances are likely to be produced during an accident. If these are specified dangerous substances the operator will have to determine, as accurately as possible, the quantities likely to be produced and compare these against the thresholds in Schedule 1. If the calculated quantities exceed the thresholds, the operator will have to comply with the relevant duties. Operators are encouraged to ask the competent authority for advice in these circumstances.

2(3)

Regulation

2(4)

(4) *Any reference in these Regulations to the storage of dangerous substances includes a reference to the presence of dangerous substances for the purposes of warehousing, depositing in safe custody or keeping in stock.*

Guidance

2(4)

80 'Storage' is defined broadly to include either warehousing, substances kept in safe custody for onward distribution, or kept in stock for use on site or elsewhere in the process.

Regulation

2(5)

(5) *Any reference in these Regulations to the start of construction or operation of an establishment is, subject to paragraph (6), a reference to the*

Regulation

2(5)

start of construction or operation, as the case may be, of the installation in the establishment, or where there is or is to be more than one installation in the establishment, the one whose construction or operation, as the case may be, is first started, and where an installation in an establishment has been constructed, or its construction has been started, before the coming into force of these Regulations, regulations 6(1) and 7(1) shall not apply in respect of that establishment.

Guidance

2(5)

81 The start of construction is considered to be the beginning of any construction work to which these Regulations would be relevant. The start of operation is considered to be the first time that dangerous substances are introduced into the establishment and includes commissioning. Therefore, if an operator started to construct an installation before these Regulations came into force they would not be required to submit a pre-construction notification or safety report. Further guidance is given under regulation 7.

Regulation

2(6)

(6) Where after the coming into force of these Regulations an establishment becomes subject to any of these Regulations by reason of any increase in the quantity of dangerous substances present there, any reference in that regulation to the start of operation of the establishment, is a reference to the time when the establishment first becomes so subject.

Guidance

2(6)

82 This is a special provision for establishments that become subject to the Regulations, at some time after these Regulations come into force, because of an increase in inventory of dangerous substances on site. Such establishments may have been in existence for some time and regulation 2(6) makes the start of operation, for the purpose of these Regulations, to be the time when the Regulations start to apply which will be the time when the inventory first exceeds the relevant threshold. It means that operators must plan ahead for any likely changes in inventory. The date on which they intend to increase their inventory to, or above, a threshold quantity is deemed to be the date of start of operation in the same way as if they were a new establishment. The operator will, therefore, have to plan for the submission of the necessary notification or safety report as set out in regulations 6 and 7.

83 Note: Situations where application of the Regulations is affected by a change in classification of a dangerous substance, a change in the threshold quantity or a change in knowledge of dangerous substances generated during loss of control of an industrial chemical process, are dealt with by regulations 5(1), 6(3A), 7(10A) and 9(2)(c) and (d) which prescribe how long operators have to comply with any resulting additional duties.

Regulation

2(7)

(7) Any reference in a regulation to an existing establishment is a reference to an establishment whose operation commenced before the coming into force of these Regulations and which, on the coming into force of these Regulations, is an establishment to which that regulation applies.

Guidance

2(7)

84 Operators of 'existing establishments' (ie those that became subject to COMAH on 1 April 1999) benefited from certain transitional provisions in the Regulations. A definition of existing establishments was provided to ensure that the benefit was correctly directed. A site or premises had to meet two criteria to qualify as an existing establishment:

- (a) it had to meet the definition of establishment in regulation 2(1). Further guidance can be found after that definition, but the key point here is that there must be some defined dangerous substance present; and
- (b) the COMAH Regulations must have applied to the establishment on the day they came into force. In other words it must have been lower-tier or top-tier

Guidance

2(7)

on 1 April 1999.
Note: The 2005 amendments did not create any existing establishments. Transitional arrangements for sites brought into COMAH by these are made elsewhere, eg regulation 7(10A).

85 It should be noted that 'presence' includes anticipated presence (see paragraph 73). If, on 1 April 1999, the operator anticipated that there would be quantities above either threshold at some time then the establishment was an 'existing establishment' and the operator had to comply with the relevant duties as set out in these Regulations.

Regulation

2(8)

(8) *The columns in Parts 2 and 3 of Schedule 1 shall be applied in accordance with the provisions of Part 1 of that Schedule and notes set out in each of those Parts.*

Guidance

2(8)

86 Part 1 of Schedule 1 and the notes following Part 3 are important. Part 1 deals with mixtures and preparations, and contains rules for ignoring dangerous substances if they are present only in very small, isolated quantities.

87 The notes include, among other things, rules for aggregating quantities of different dangerous substances with similar properties for the purpose of determining application. For further information see the guidance to Schedule 1.

Regulation

2(9)

(9) *Any reference in these Regulations to -*

- (a) *a numbered regulation or Schedule is a reference to the regulation in or Schedule to these Regulations so numbered, and*
- (b) *a numbered paragraph is a reference to the paragraph so numbered in the Regulation or Schedule in which the reference appears.*

Regulation

3(1)

Regulation 3 Application

(1) *These Regulations shall apply to an establishment where a dangerous substance listed in column 1 of Parts 2 or 3 of Schedule 1 is present in a quantity equal to or exceeding the quantity listed in the entry for that substance in column 2 of those Parts, except that regulations 7 to 14 shall apply only to an establishment where such a dangerous substance is present in a quantity equal to or exceeding the quantity listed in the entry for that substance in column 3 of those Parts.*

Guidance

3(1)

88 This regulation, together with Schedule 1, sets out the scope of application of the Regulations as a whole. This is done by reference to threshold quantities of dangerous substances which are listed in Schedule 1.

89 There are three parts to Schedule 1:

- (a) Part 1 - an introductory note;
- (b) Part 2 - a list of named substances; and
- (c) Part 3 - a list of generic categories of substances. These are determined by the Directive for the classification and labelling of dangerous substances for supply, including pesticides, which have been implemented in Great Britain by the CHIP Regulations.

90 Parts 2 and 3 of Schedule 1 give the threshold quantities which bring establishments within scope of the COMAH Regulations. Column 2 gives the lower-tier threshold and column 3 the top-tier.

Guidance

91 There is no requirement for there to be an 'industrial activity', as there was in CIMAH, and there is no distinction between 'process' and 'storage'. If an establishment has, is likely to have, or could generate during loss of control of an industrial chemical process, a dangerous substance at or above the threshold quantity then the Regulations apply, irrespective of the nature of the activity, unless it is specifically exempted by regulation 3(2).

92 In deciding the quantities of substances present or likely to be present (see paragraphs 73-75) operators will need to bear in mind the aggregation rules and the 2% rule which are in the notes to Schedule 1. For further details see the guidance to Schedule 1.

93 The flowchart in 'Notes on the COMAH Regulations' (see pages 5-11) will help operators decide if the Regulations apply to their activities.

94 Once it has been established that the Regulations apply to an establishment, all dangerous substances present or likely to be present must be considered in respect of all duties imposed by these Regulations, for example major accident prevention policies and safety reports.

95 The Regulations do not apply offshore; to apply offshore they would have to contain an explicit provision to that effect.

3(1)

Regulation

(2) *The reference in paragraph (1) to the presence of dangerous substances shall not include the presence of dangerous substances in the following activities -*

(a) *the transport of those substances and their intermediate temporary storage by road, rail, inland waterways, sea or air, including their loading and unloading and transport to and from another means of transport at docks, wharves and marshalling yards; or*

3(2)

Guidance

96 This qualifies the definition in regulation 2(3) of 'presence of dangerous substances' so that dangerous substances in transport are not taken into account when determining if the Regulations apply to premises. However, if the Regulations do apply, any transport activities at the establishment must be taken into consideration by the operator if they could cause or exacerbate a major accident.

97 For example, if 190 tonnes of LPG are stored at an establishment, the Regulations would apply at lower-tier. If one or more road tankers containing LPG were to park regularly at the establishment, for example for an overnight stop on a long journey, the establishment would remain lower-tier, even though the total inventory would occasionally be above the 200 tonne top-tier threshold. However, the LPG in the tankers must be taken into account when considering sources and consequences of major accident hazards.

98 Similarly, premises with 40 tonnes of LPG on site would remain outside the scope of the Regulations, even if road tankers containing sufficient LPG to take the total inventory above the 50 tonne lower-tier threshold came onto the site at any time for deliveries or parking.

99 The phrase 'intermediate temporary storage' covers situations where dangerous substances in the transport chain (from the point of origin to the point of destination) are held temporarily. So motorway service stations, lorry parks and railway marshalling yards would not be brought into scope by the temporary presence of vehicles carrying dangerous substances; nor would docks, wharves and quays where there is a change in transport mode. Container-handling terminals are also outside the scope of the Regulations. Again, this is only for purposes of determining application of the Regulations. However, such premises would be

3(2)

Guidance

subject to the Regulations if threshold quantities of dangerous substances were there for purposes other than intermediate temporary storage, for example bulk LPG used for fuel. In such circumstances any intermediate temporary storage must be taken into consideration by the operator if it could cause or exacerbate a major accident. The competent authority has issued guidance on temporary storage.⁵

100 Where dangerous substances are present on a permanent basis, even if they are in mobile containers, COMAH will apply if the relevant threshold is exceeded. An example would be a rail siding where rail tankers containing LPG are kept for unloading into road tankers and are replaced by full ones as soon as they are empty. This constitutes a permanent presence and is within the scope of the Regulations.

101 Long-term commercial storage facilities and warehouses are within the scope if they have, or anticipate having, threshold quantities of dangerous substances. Similarly, fixed bulk storage of dangerous substances in tanks or other bulk containers at docks etc would not be considered 'intermediate temporary storage' and the Regulations would apply.

3(2)

Regulation 3(2)

(b) *the transport of those substances in a pipeline or pumping station.*

Guidance

102 This exclusion is similar to that in regulation 3(2)(a). Dangerous substances in pipelines are not taken into account when determining if the Regulations apply to a site. However, if the site is an establishment subject to the Regulations due to any other presence of dangerous substances, those in pipelines must be taken into account when considering major accident hazards. 'Pipeline' is defined in regulation 2 as being a pipeline subject to the Pipelines Safety Regulations 1996, so this exclusion will only apply to pipelines to which those Regulations apply.

3(2)

Regulation

(3) *These Regulations shall not apply to -*

(a) *an establishment which is under the control of -*

- (i) *the Secretary of State for the purposes of the Ministry of Defence,*
- (ii) *a headquarters or organisation designated for the purposes of the International Headquarters and Defence Organisations Act 1964^(a) or the service authorities of a visiting force within the meaning of any of the provisions of Part 1 of the Visiting Forces Act 1952^(b);*

(a) 1964 c.5.
(b) 1952 c.67.

3(3)

Guidance

103 Establishments operated by the military are outside the scope of these Regulations. The key point in this context is the identity of the operator, ie the person who is in control of (and, therefore, has responsibility for) the activity, rather than the nature of the activity. So, an establishment which is carrying out activities for military purposes but is operated by a contractor, will be subject to the Regulations. If the Ministry of Defence (MOD) is in control, the establishment is exempt. If part of an MOD-controlled site has been sub-contracted, and the sub-contractor has control of the activity on that part of the site, that part is an establishment for COMAH purposes because of the definition of establishment in regulation 2(1).

3(3)

Regulation

- (b) *substances which create a hazard from ionising radiation if present on a site for which a nuclear site licence has been granted or is required for the purposes of section 1 of the Nuclear Installations Act 1965^(a);*

3(3)

(a) 1965 c. 57; section 1 was amended by SI 1974/2056 and SI 1990/1918.

Guidance

3(3)

104 Substances which emit ionising radiation are outside the scope of the COMAH Regulations if they are on premises covered by the Nuclear Installations Act. However, dangerous substances which do not emit ionising radiation would bring such an establishment into the scope of COMAH if the quantity exceeded the appropriate threshold.

Regulation

- (c) *the exploration, extraction and processing of minerals in mines, quarries, or by means of boreholes, except-*

- (i) *chemical and thermal processing operations; and*
(ii) *storage related to those operations,*

3(3)

which involve dangerous substances; and

Guidance

3(3)

105 Any on-shore mineral exploration, extraction and exploitation is excluded from the scope of the Regulations including oil and gas drilling and extraction facilities, as well as traditional mining industries. However, the following are not excluded if they involve dangerous substances:

- (a) chemical and thermal processing of minerals;
(b) storage of any dangerous substances in connection with such processing, including waste;
(c) on-shore oil and gas reception facilities.

Regulation

3(3)

- (d) *waste land-fill sites, except tailing ponds or dams and other operational tailings disposal facilities containing dangerous substances, in particular when any such facilities are used in connection with the chemical and thermal processing of minerals.*

Guidance

3(3)

106 Only land-fill sites are excluded by this. Waste incineration establishments will be within the scope if they meet the qualifying criteria. If a land-fill site also has other activities involving dangerous substances which would bring the establishment under the COMAH Regulations then advice should be sought from the competent authority.

Regulation

3(4)-3(5)

- (4) *[Revoked]*

- (5) *These Regulations shall not apply in Northern Ireland.*

Guidance

3(4)-3(5)

107 The Seveso II Directive has to be implemented in the whole of the United Kingdom. As is the usual practice, Northern Ireland makes separate legislative and administrative arrangements (see paragraph 37).

PART 2: GENERAL

Regulation

4

Regulation 4 General duty

Every operator shall take all measures necessary to prevent major accidents and limit their consequences to persons and the environment.

Guidance

108 This is the general duty on all operators and underpins the whole of the Regulations. It is a high standard which applies to all establishments within the scope of the Regulations. In judging how this duty should be complied with in practice, the competent authority will be guided by the following interpretation. By requiring measures both for prevention and mitigation the wording of the duty recognises that risk cannot be completely eliminated. This in turn implies that there must be some proportionality between the risk and the measures taken to control the risk. Proportionality will be a key element in the competent authority's enforcement policy; it is also a principle underlying European Community law. Therefore, the phrase 'all measures necessary' will be interpreted to include this principle. The competent authority will make a judgement whether a preventive or mitigatory measure is necessary in relation to the major hazard and residual risk the measure addresses. Where hazards are high, high standards will be required to ensure risks are acceptably low.

109 Prevention should be considered in a hierarchy based on the principles of reducing risk to a level as low as is reasonably practicable (ALARP). The ideal should always be, wherever possible, to avoid a hazard altogether. This is known as inherent safety and the principles apply to human and environmental hazards. Where reliance is placed on people as part of the necessary measures, human factor issues (including human reliability) should be addressed with the same rigour as technical and engineering measures (see HSE publication *Reducing error and influencing behaviour*⁶). It is considered further in the guidance to Schedule 4 ('Purpose and contents of safety reports'). Although Schedule 4 only applies to top-tier establishments, operators of lower-tier establishments may find the guidance useful in meeting the general duty to take all measures necessary. Inherent safety involves evaluating process options to determine which provides optimal risk reduction in terms of safety and environmental protection.

110 Once a process or other activity has been selected, operators should look at how it can be made inherently safer by reducing hazards, for example by reducing the inventory. The next stage is to ensure that risks have been reduced to ALARP and this is generally done by adopting good practice to address the remaining hazards. For new establishments, ALARP will be judged on what measures would be reasonable at the design stage.

111 Good practice represents a consensus between regulators, technical experts, duty holders and other stakeholders on what constitutes proportionate action to control a given hazard. Among other things it takes account of what is technically feasible and the balance between the costs and benefits of the measures taken. Sources of good practice include Approved Codes of Practice and standards produced by organisations such as the British Standards Institution (BSI), Comité Européen de Normalisation (CEN), Comité Européen de Normalisation Electrotechnique (CENELEC), International Organization for Standardization (ISO), and the International Electrotechnical Commission (IEC).

112 In most cases, good practice will mean defence in depth by adopting sound engineering design principles, along with good operating and maintenance practices. In some cases, however, this will not be sufficient and it could require adopting best practice or state of the art technology. For example, the

4

Guidance

arrangements for storing liquefied natural gas are more stringent than for some other extremely flammable liquids because of its potential to cause a major flash fire in the event of a significant release; also a site storing pressurised or liquefied toxic gas in an urban or suburban area may also need to adopt best practice or state of the art technology. In such situations the process safety management systems will need to be exemplary.

113 There will be some cases where good practice has not been established. Here, the first recourse should be to examine the good practice that applies in comparable circumstances, for example that used for a similar process, to determine if it is transferable or can be modified to achieve at least the same protection.

114 Operators may employ a risk management approach to prevention and mitigation based on first principles as an alternative to compliance with established good practice, but the competent authority will require this to be thoroughly justified. In cases where no suitable standard for good practice exists, this may be the only possible course of action.

115 There is a range of risk management systems available but they typically include the following elements:

- (a) identifying the hazards and risks;
- (b) examining the control options available and their merits, including the human factor aspects;
- (c) adopting decisions for action informed by the findings of (a) and (b) above;
- (d) implementing the decisions; and
- (e) evaluating the effectiveness of the actions taken and revising where necessary.

116 Based on this system, operators must be able to demonstrate that the control measures adopted are adequate for the risks identified.

117 In demonstrating ALARP, it is not a requirement of the Regulations that quantified risk assessment should always be undertaken. However, in some cases, this may help to set priorities when comparing risk values, particularly where new technology is used and where there is no established good practice for comparison.

118 It will not usually be necessary to prepare any special documents to comply with this regulation. For top-tier establishments the safety report, emergency plans, hazardous substances consent and planning permissions should provide sufficient evidence. For lower-tier establishments the MAPP, hazardous substances consent and planning permissions will normally be enough.

119 'All measures necessary' includes measures for mitigating the effects of major accidents. This includes land-use planning which helps to mitigate the effects of major accidents by ensuring adequate separation of people and the environment from their consequences. The hazardous substances authority and planning authorities deal with land-use planning but information from the operator in the hazardous substances consent application is essential for them to perform this function.

120 Top-tier operators will need to prepare suitable emergency plans as required by regulation 9. These operators will also need to take all necessary measures to mitigate the effects of major accidents. This includes taking the necessary remedial measures to restore and clean up the environment after a major accident both on and off site. These remedial measures should be proportionate to the level of harm caused by the accident and the risk of continuing harm to people and

Guidance

the environment. Mitigation would normally include both short-term action taken during or immediately after an accident and longer-term measures to clean up contamination which could cause continuing detrimental effects for human health and the environment.

121 More details of the kind of measures that might be required are given in the guidance to regulations 9 and 10. The environment agencies will advise on what might be required and will be responsible for enforcing this duty on operators, both under this regulation and other environmental legislation which requires remediation.

122 Planning for emergencies is one aspect of the MAPP required of lower-tier operators by regulation 5. They too will need to take all necessary measures to mitigate the effects of major accidents and also proportionate remedial measures to restore the environment.

123 Operators must not only take all the measures necessary but they must, when requested by the competent authority, demonstrate that they have done so (regulation 15(1)). The competent authority's programme of inspections will be designed to check this. For top-tier operators this will mean ensuring that the plant is operated in accordance with the information and data in the safety report. For further information see the guidance on regulations 15 and 19.

4

Guidance

5(1)-5(3)

Regulation 5 Major accident prevention policy

124 Note: Appendix 3 gives details on timescales for submission of major accident prevention policies in various circumstances.

Regulation

(1) *Every operator shall without delay but at all events within 3 months after the establishment becomes subject to this regulation prepare, and thereafter keep, a document setting out his policy with respect to the prevention of major accidents (in these Regulations referred to as a "major accident prevention policy document").*

(2) *The policy referred to in paragraph (1) shall be designed to guarantee a high level of protection for persons and the environment by appropriate means, structures and management systems.*

(3) *The major accident prevention policy document shall -*

(a) *take account of the principles specified in paragraphs 1 and 2 of Schedule 2; and*

(b) *include sufficient particulars to demonstrate that the operator has established a safety management system which takes account of the principles specified in paragraphs 3 and 4 of that Schedule.*

5(1)-5(3)

Guidance

Major accident prevention policy (MAPP)

125 All operators must have a MAPP but only lower-tier operators have to produce it as a separate document. See paragraph 136 for further details on this point.

126 A MAPP has to be prepared 'without delay' which means as soon as possible after an establishment becomes subject to COMAH but the maximum time allowed is three months. Establishments may become subject to COMAH because of:

(a) an increase in quantity of a dangerous substance;

(b) a change in the CHIP classification of a substance which means an existing quantity then exceeds the threshold;

5(1)-5(3)

Guidance

- (c) a change to a qualifying quantity in Schedule 1; or
- (d) a change in knowledge of dangerous substances generated during loss of control of an industrial chemical process.

127 This duty only applies to lower-tier establishments. Top-tier operators do not have to prepare a separate MAPP document; it is included in the safety report, production of which is determined by regulation 7 (see regulation 5(6)). Operators of top-tier sites which subsequently become lower-tier should refer to paragraph 141.

128 The MAPP should commit the operator to achieving a high standard of major hazards control. It should be proportionate, in scope and structure, to the scale of hazards at the establishment. It must be in writing, take account of the principles in Schedule 2 and be signed by someone at a senior level within the organisation. It should be made available to employees and others at the establishment, such as contractors. Accidents and incidents, including major accidents, usually arise from organisational and human failings which are the responsibility of the operator. Therefore, management systems which establish an appropriate culture, backed by rigorous procedures and practices which take account of human factors, are critical in achieving high and sustainable standards of major hazard control. Further guidance on this can be found with Schedule 2.

129 It is not necessary to submit a MAPP document to the competent authority, unless requested to do so. It will usually be requested before a visit, and it should be kept available for inspection. Inspectors will use it, along with other data and information, to plan and structure inspections.

130 The emphasis on safety and environmental management systems in these Regulations complements the general approach taken in Great Britain for many years and which is already found in existing legislation and guidance. The HSW Act requires employers to prepare a written statement of health and safety policy and the organisation and arrangements for carrying out the policy (although, unlike the duty to prepare a MAPP, this only applies to employers with more than four employees). MHSWR requires employers to assess risks and to make arrangements for the effective planning, organisation, control, monitoring and review of the preventive and protective measures.

131 The duty in regulation 5 builds on these requirements and guidance but the MAPP differs from policies and arrangements produced under the HSW Act and MHSWR in two respects. It must:

- (a) specifically address major accident hazards - the HSW Act and MHSWR relate to all health and safety hazards but the MAPP should concentrate on policies designed to prevent high-consequence events such as major accidents; and
- (b) relate to protection of both people and the environment - the HSW Act and MHSWR only address risks to people.

132 As long as the specific elements of a safety management system (SMS), as described in Schedule 2, are covered, operators are free to format the documentation in a way which suits them. This could be by adapting existing HSW Act safety policy statements to incorporate the MAPP provisions, or by drawing on material from existing documents to create a MAPP. In seeking to use or adapt existing policies to provide the MAPP information, the test must be to ensure the information supplied meets the requirements of regulation 5 and Schedule 2. It is important to understand that the safety, health and environment management system to which the MAPP relates is a constituent part of the overall management system within the establishment, which may in turn be developed for a larger entity such as a company or group of companies. The SMS may also be integrated

Guidance

within an overall management system which addresses other matters such as quality. Therefore the approach towards developing the MAPP and providing and implementing the safety management system will vary, reflecting the overall management philosophy, system and culture of the organisation.

133 The MAPP will usually be a short and simple document. It should set down what is to be achieved, with an indication of how this is to be done, but not in any great detail. The detail will be contained in other documentation relating to the establishment, for example plant operating procedures, training records, job descriptions, audit reports, to which the MAPP document can refer. However, though detailed information can be referred to, the document should summarise the policy, organisation, arrangements, monitoring etc and contain sufficient information to indicate that all relevant requirements will be covered by the systems set up to implement the MAPP. It should set down the overall aims and approach to ensuring the safety of the major hazard establishment throughout its life.

134 The MAPP is a key document for operators. It lays down the framework within which adequate identification, prevention/control and mitigation of major accident hazards is achieved. However, operators have considerable flexibility to format their documentation in a way which suits their own circumstances and which fits in with their policies for other health, safety and environmental legislation. The essential questions which operators must ask themselves are:

- (a) Does their policy adequately meet the requirements of these Regulations?
- (b) Will it deliver a high level of protection for people and the environment?
- (c) Are there management systems in place which achieve the objectives set out in the policy?
- (d) Are the policy, management systems, risk control systems and workplace precautions kept under review to ensure that they are implemented and that they remain relevant?

135 The MAPP sets out the high-level policy which may be applicable across several sites belonging to a company. At the next level, below the MAPP, an SMS is required, to implement the policy aims in the MAPP. Lower-tier site operators have to provide enough information to show that an SMS has been established, taking account of the principles set out in paragraphs 1, 2, 3 and 4 of Schedule 2. The MAPP would not contain detailed documents describing the SMS; see the guidance on Schedule 2 for more information. HSE has produced an Information Sheet on MAPPs, specifically for lower-tier sites.⁷

136 Top-tier operators must show that a MAPP, and the SMS to implement it, have been put into effect; see paragraph 1 of Schedule 4, Part 1, and the associated guidance. The MAPP need not be a separate document, but is required to be part of the safety report.

137 For a multi-site operator the MAPP might apply to several sites, but these more detailed documents will always be specific to a particular establishment.

5(1)-5(3)

Regulation

Keeping the MAPP up to date

(4) In the event of the modification of the establishment or installation, the process carried on there, or the nature or quantity of dangerous substances present there which could (in each case) have significant repercussions with respect to the prevention of major accidents, the operator shall review and where necessary revise the major accident prevention policy document.

5(4)

Guidance

5(4)

138 The MAPP must be reviewed and, if necessary, revised in the event of certain modifications. This is an extension of the duties to address management of change and to audit and review the MAPP document under Schedule 2. This duty is aimed at modifications which could have significant repercussions on major accident hazards and is not intended to deal with routine or trivial changes. The guidance under regulation 8(4), which relates to the revision of safety reports, gives examples of significant modifications (see paragraph 227). Operators of lower-tier establishments may find the guidance helps to determine whether the MAPP needs to be revised to take account of the changes. Review and revision must be done before the modification takes place. Operators may contact the competent authority for advice if they are unsure whether a modification is significant.

Regulation

5(5)

Implementing the MAPP

(5) *The operator shall implement the policy set out in his major accident prevention policy document.*

Guidance

5(5)

139 The MAPP is not something prepared as an academic exercise just to comply with a legal duty and then put on one side; it has to be put into practice. It is important that the safety management system described in it is put into operation.

Regulation

5(6)

Who has to prepare a MAPP?

(6) *Subject to paragraph 1 of Part 1 of Schedule 4 and paragraph 1 of Part 2 of that Schedule, this regulation shall not apply to an establishment to which regulation 7 applies.*

Guidance

5(6)

140 All operators must have a MAPP but the effect of regulation 5(6) is to exempt operators of top-tier sites from the duty to prepare a separate MAPP document. Schedule 4, Part 1, paragraph 1 requires them to have a MAPP and put it into effect, but Schedule 4, Part 2, paragraph 1 requires it to be incorporated in the safety report, although it could be a separate document which is referenced by the safety report; see the guidance under Part 2 of Schedule 4.

141 Operators of lower-tier establishments must draw up a stand-alone document setting out their MAPP, because they do not have to produce a safety report. Operators of top-tier establishments that subsequently become lower-tier, for example due to a permanent reduction of inventory, would no longer need to have a safety report but the MAPP information in their safety report may still be suitable for their lower-tier status. Regulation 5(4) would require them to review the MAPP information in the safety report at this time but if the review concluded that no revision was necessary then it would not be necessary to prepare a stand-alone MAPP although it may be more convenient to do so.

Guidance

6(1)

Regulation 6 Notifications

142 Note: Appendix 3 gives details on timescales for notifications in various circumstances.

Regulation

6(1)

(1) *Within a reasonable period of time prior to the start of construction of an establishment the operator of the establishment shall send to the competent authority a notification containing the information specified in Schedule 3.*

Guidance

6(1)

143 Notification by operators is essential to enable the competent authority to plan its assessment and inspection programmes in accordance with regulations 17 and 19 and ensure that operators comply with their duties under these Regulations.

Guidance

The Regulations require all establishments within scope to notify (unless they have already supplied all the information required by Schedule 3 in their CIMAH or COMAH safety report).

144 Further information on notification can be found on the HSE website which also contains templates that may be used for this purpose (www.hse.gov.uk/comah/notification).

145 Operators of establishments yet to be built which, when constructed, will become subject to COMAH should send their notification in reasonable time before the start of construction, normally three to six months. This will enable the operator and the competent authority to start discussions about the project which could help both of them. If installations are relatively straightforward and can be designed and constructed in less than three months, such as those handling LPG and other industrial gases, operators are advised to ask the competent authority to agree what the time period should be.

146 Some of the information required by Schedule 3 may also already have been provided under the following legislation:

- (a) applications for hazardous substance consent. In England and Wales these are made to the Hazardous Substance Authority; in Scotland they are made to the Planning Authority. Applications are made under the Planning (Hazardous Substances) Act 1990 and the Planning (Hazardous Substances) Regulations 1992 (as amended) in England and Wales, and the Planning (Hazardous Substances) Act 1997 and the Town and Country Planning (Hazardous Substances) (Scotland) Regulations 1993 in Scotland;
- (b) applications for authorisation. Made under the Environmental Protection Act 1990;
- (c) environmental impact statements. These are produced under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 and related regulations in England and Wales and Part II of the Environmental Assessment (Scotland) Regulations 1988 and related regulations in Scotland;
- (d) applications for explosives licences. These are granted under the Manufacture and Storage of Explosives Regulations 2005; and
- (e) applications for permit to operate under the Pollution Prevention and Control (England and Wales) Regulations 2000 or the Pollution Prevention and Control (Scotland) Regulations 2000.

147 Any of the information referred to in paragraph 146 can be used for the COMAH notification but a separate notification under this regulation should always be made (except in the circumstances outlined in paragraph 149). This is because the information about the environment in, and around, the site is unlikely to have been included in other submissions. The information required consists of the basic details listed in Schedule 3. Only those dangerous substances which are present at or above the relevant thresholds need be notified; for example, if an establishment has three different dangerous substances present:

- (a) below lower-tier;
- (b) above lower-tier but below top-tier; and
- (c) above top-tier,

only those in (b) and (c) need be notified to the competent authority. However, where an establishment is brought into the scope of the Regulations by the aggregation rules (see paragraph 403), all the aggregated substances should be included in the notification.

148 As explained in paragraph 73, operators of warehouses and other

Guidance

establishments with varying inventories may, if they wish, notify the maximum, or ceiling, quantities of dangerous substances which they anticipate might be present.

149 As explained in regulation 2(5), paragraph 81, it is not necessary to submit a notification under regulation 6(1) if construction of an establishment began before the Regulations came into force.

150 Regulation 2(1) requires that notifications be in writing. Notification by e-mail is acceptable but not by text message.

6(1)

Regulation

(2) Within a reasonable period of time prior to the start of the operation of an establishment, or in the case of an existing establishment by 3rd February 2000, the operator of the establishment shall send to the competent authority a notification containing the information specified in Schedule 3, except that this paragraph shall not require the notification to contain information already contained in a notification sent pursuant to paragraph (1) if that information is still valid.

6(2)

Guidance

151 Operators of new establishments must send another notification, in advance of the start of operation, if any of the details in the pre-construction notification were missing or have changed. This notification must be made a reasonable period of time before start of operation, normally three to six months.

152 Existing establishment is defined by regulation 2(7) as one that was already operating on 1 April 1999. The provisions in this regulation for existing establishments are no longer relevant. Note: The 2005 amendments did not create any existing establishments - see paragraph 84.

6(2)

Regulation

(3) Paragraph (2) shall not apply to an existing establishment in respect of which a report has been sent to the Executive in accordance with regulation 7 of the 1984 Regulations.

6(3)

Guidance

153 Operators of CIMAH top-tier sites who have submitted a CIMAH safety report do not need to notify under this regulation. This is because the CIMAH safety report will have included all the information required by Schedule 3.

6(3)

Regulation

(3A) Where paragraphs (1) to (3) do not apply, the operator of the establishment shall send to the competent authority a notification containing the information specified in Schedule 3 within 3 months after the establishment becomes subject to this regulation.

6(3A)

Guidance

154 This deals with establishments which become COMAH sites. This may be due to:

- (a) a change in the CHIP classification of a substance which means an existing quantity then exceeds the threshold;
- (b) a change to a qualifying quantity in Schedule 1; or
- (c) a change in knowledge of dangerous substances generated during loss of control of an industrial chemical process.

155 Note: Establishments which become subject to COMAH Regulations due to an increase in the quantity of dangerous substance(s) on site are covered by regulation 6(2) because regulation 2(6) makes the start of operation the date that the quantity exceeds the relevant threshold.

156 In these circumstances the operator must send the appropriate notification within three months of the establishment becoming subject to the Regulations.

6(3A)

Regulation

- (4) *The operator shall notify the competent authority forthwith in the event of -*
- (a) *there being any significant increase in the quantity of dangerous substances notified -*
 - (i) *under this regulation, or*
 - (ii) *in the report referred to in paragraph (3);*
 - (b) *there being any significant change in -*
 - (i) *the nature or physical form of the dangerous substances so notified,*
 - (ii) *the processes employing them, or*
 - (iii) *any other information notified to the competent authority under this regulation in respect of the establishment;*
 - (ba) *modification of the establishment or an installation which could have significant repercussions with respect to the prevention of major accidents;*
 - (c) *regulation 7 ceasing to apply to the establishment by virtue of a change in the quantity of dangerous substances present there; or*
 - (d) *permanent closure of an installation in the establishment.*

6(4)

Guidance

157 Some significant changes to the information required by Schedule 3 must be notified to the competent authority. These will include both increases and decreases in the quantities of dangerous substances (including substances new to the establishment), as well as changes to the process or other details previously submitted, such as a change of operator. The key test here is significance, which should be judged in the context of an increase (or decrease) in likelihood or consequence of a major accident. This parallels regulation 8(4).

158 Any increase where the prevention, control or mitigation measures need to be altered would normally be considered significant. Similarly, a decrease in quantities of dangerous substances which moves an establishment below top-tier thresholds would also be significant. In situations where a ceiling of a generic category of substances is notified, operators do not need to notify fluctuations within that ceiling, but only increases above the ceiling.

159 Notification is also required if the form or nature of the dangerous substances is changed significantly. Examples which would require notification are a change of phase, for example from gaseous to liquid chlorine, or a change of state, for example from solid to powder. Process changes which would require notification include significant increases or decreases in temperature, pressure or quantity of a dangerous substance, or different process technology. Consideration of notification should be included in the management system controlling significant plant changes.

160 Regulation 6(4)(ba) demands notification in the event of any modification to an establishment or installation which could have significant repercussions with respect to the prevention of major accidents. This is a widely drawn duty and operators should carefully consider the possible effects of any change to the establishment or installation and send a notification if appropriate. In general it is better to either consult the competent authority or notify them anyway. Although the paragraph applies to both top-tier and lower-tier sites, its only real effect is on lower-tier sites because top-tier sites have to submit a modified safety report in advance of such modifications (regulation 8(4)) and regulation 6(5) means no separate notification is necessary.

6(4)

Guidance

161 Operators should notify the competent authority if an installation within the establishment is closed. Closure of an establishment would require closure of all installations and should also be notified.

162 Regulation 24 requires CIMAH safety reports to be kept up to date until the COMAH report is produced; therefore the changes to be notified include significant changes to information in CIMAH reports.

163 Operators of sites which, on 1 April 1999:

- (a) were previously CIMAH top-tier but either became COMAH lower-tier or became not subject to COMAH; or
- (b) were previously CIMAH lower-tier but became not subject to COMAH;

do not have to notify this change to the competent authority but it would be helpful to both parties if they did.

164 An 'existing establishment' (ie one that was subject to COMAH on 1 April 1999) may at some later date cease to be subject to COMAH or may move from top-tier to lower-tier. If, later still, that establishment becomes subject to COMAH again or moves back into top-tier and had previously had a CIMAH or COMAH safety report, then certain of the transitional arrangements could apply if they are still relevant. However, a notification will be required to reflect the changed status of the establishment and new MAPPs, safety reports and emergency plans will need to be prepared to reflect the changed circumstances. The deadlines for submitting such information follow those for 'new establishments'.

6(4)

Regulation 6(5)

(5) This regulation shall not require the notification of any information which has been included in a safety report.

Guidance

165 If operators have submitted safety reports before their notifications become due, they do not need to send in a separate notification. Likewise, if they have submitted a revised safety report in advance of a modification in accordance with regulation 8(4) or regulation 24(2), then they do not need to send in a revised notification. However, operators should be sure their safety reports contain all the information specified in Schedule 3. Any missing information should be provided in compliance with regulation 6(4).

6(5)

PART 3: SAFETY REPORTS

Guidance

166 Detailed guidance on all aspects of safety reports can be found in HSE's *Preparing safety reports*.⁸ The competent authority has produced a Safety Report Assessment Manual which may be of use when writing and submitting a safety report; it is available on the HSE website (see back cover). This is relevant to regulations 7 and 8 and Schedule 4.

Guidance

Regulation 7 Safety report

167 Note: Appendix 3 gives details on timescales for submission of safety reports in various circumstances.

168 Operators of top-tier sites are required to produce a safety report. Its key requirement is to demonstrate that they have taken all measures necessary to prevent major accidents and to limit the consequences to people and the environment of any that do occur. The discipline of having to undertake this demonstration can reveal shortcomings in operators' preventive measures. This will lead to establishments that are not only safer for people and less dangerous to the environment, but which should also be more efficient and economic in operation.

169 The safety report also provides the competent authority with a comprehensive description of the establishment, its surroundings, the associated hazards and risks and the control measures in place. Under regulation 17, the competent authority is required to assess the safety report; this gives it a greater insight into all facets of major accident prevention at an establishment. The assessment process can then shape inspection programmes which ensure that resources are targeted at critical areas, to the benefit of both regulators and operators.

170 The application of COMAH regulation 7 will vary, depending on whether the establishment is constructed after the coming into force of the Regulations (and will be top-tier following commissioning), or because it is an establishment brought into top-tier for the first time by: an increase in quantity of dangerous substance already present; or by a change in CHIP classification of substances already present; or changes to COMAH thresholds; or by a change in knowledge of dangerous substances that might be generated in a major accident.

171 Regulations 7(1) to 7(6) relate to top-tier establishments newly constructed after the coming into force of these Regulations. Establishments which become top-tier after the coming into force of these Regulations due to an increased quantity of dangerous substance already present are subject to regulations 7(5) and 7(6). Regulation 7(7) is concerned with existing establishments (see the definition in regulation 2(7)). Regulations 7(8) and (9) concern establishments previously covered by the CIMAH Regulations and are no longer relevant. Regulation 7(10) is only applicable to establishments which were previously covered by the CIMAH Regulations and submitted their safety reports in parts. Regulation 7(10A) applies to establishments which become top-tier due to:

- (a) a change in the CHIP classification of a substance, which means an existing quantity then exceeds the threshold;
- (b) a change to a qualifying quantity in Schedule 1; or
- (c) a change in knowledge of dangerous substances generated during loss of control of an industrial chemical process.

172 Regulations 7(11) to (13) are of general application.

173 New installations or increases in qualifying inventories, at any top-tier

Guidance
7

establishment which has submitted a safety report, are modifications dealt with under regulation 8(4).

Regulation

(1) Within a reasonable period of time prior to the start of construction of an establishment, the operator of the establishment shall, subject to paragraph (12), send to the competent authority a report containing information which is sufficient for the purpose specified in paragraph 3(a) of Part 1 of Schedule 4 and comprising at least such of the information specified in Part 2 of that Schedule as is relevant for that purpose.

7(1)-(2)

(2) The report referred to in paragraph (1) may comprise more than one document sent to the competent authority at different times within the period referred to in that paragraph.

Guidance

174 For establishments which start construction after these Regulations come into force, the safety report should be submitted a reasonable period of time before construction. This approach requires operators to submit parts of a safety report at a point before those 'front end' or conceptual design decisions are finalised which will affect safety and the environment, and which will be difficult and costly to reverse.

175 The pre-construction parts of a safety report may be provided as a 'rolling' submission of agreed documents, which taken together would contain all the information needed at the pre-construction stage. Operators should discuss this form of submission with the competent authority at an early stage. For the purposes of this guidance, references to a safety report in regulations 7(1)-7(4) can mean either a report submitted at one time or as a series of documents.

176 As a general principle, major accidents should be prevented by measures which eliminate or reduce hazards rather than measures which reduce the frequency of the accident occurring or which limit its consequences. It is important, therefore, that the competent authority has the opportunity to review as much information as possible at the pre-construction stage, to assess whether the inherent features of the design are sufficient to prevent, control and mitigate major accidents.

177 What constitutes 'a reasonable period of time' before construction will depend on several factors, including the scale and complexity of the proposed plant, the extent to which new or unusual technology is employed and the scale of the hazard. It will also depend on the depth and scope of information which the operator has submitted at the hazardous substances consent stage, the past history of the operator, the type of plant and familiarity with similar establishments run by the same operator, and the extent to which the operator has discussed proposals with the competent authority in advance of the formal submission of the first part of the safety report.

178 Operators are recommended to provide the competent authority with a plan setting out a timescale for the stages of the project such as conceptual design, finalisation of design, construction, procurement, commissioning etc. They are also encouraged to begin discussions with the competent authority as early as possible. This will have two advantages: the operator will be able to proceed with confidence at each stage in the project; and the competent authority's formal assessment before construction can be completed more quickly.

179 In cases where the operator chooses to submit a rolling submission, the competent authority will inform the operator of its views, as appropriate, as each document is assessed. It will be in a position to give its overall conclusions quickly after the last document has been submitted. However, with very little prior

7(1)-(2)

Guidance

information, the competent authority may require up to three months from receipt to assess the safety report and give the operator its conclusions.

180 The competent authority will also take into account any information submitted in an application for a hazardous substances consent relating to the siting of a new establishment under planning legislation. This includes such information as inventories of dangerous substances, vessel size and location. It does not normally contain information on major accident scenarios and measures for prevention and mitigation, but if operators provide this at the consent stage, the competent authority will assess it as part of the pre-construction stage of the safety report. See guidance on regulation 7(11).

7(1)-(2)

Regulation

7(3)

(3) Nothing in paragraph (1) shall require the report to contain information which it would not be reasonable to expect the operator to have at the time of sending the report.

Guidance

181 It will not usually be possible for a safety report submitted before construction to provide all the information required by Schedule 4. A safety report submitted at this stage should demonstrate that all hazards have been identified and, as far as possible, that measures necessary to prevent major accidents arising from failures of plant and equipment have been identified.

182 If prevention and control measures are not fully determined at this stage, the safety report should demonstrate that the feasibility of controlling major accident hazards has been established. It should be sufficiently comprehensive to give confidence that any technical issues which are not resolved fully at that stage are unlikely to compromise safety or require significant changes to plant for safety reasons, once construction has started.

183 The pre-construction submission should focus on 'front-end' design. It should cover: conceptual design issues such as selection of process options (taking into account principles of inherent safety and best practicable environmental options), dangerous substances, pressures, temperatures, inventories, and locational information such as positioning of vessels, occupied buildings etc and descriptions of the surrounding environment. The information should also set out the major accident scenarios; the philosophy of prevention, control and mitigation (for example secondary containment); and a demonstration that an effective SMS will be in place and that human factors have been addressed at the right stages of the design process and throughout the SMS.

184 If, however, the establishment is a 'turn-key' project built to a standard design, it may be that much of the information in Schedule 4 will be almost complete before construction. Layout, materials of construction, control and instrumentation systems and operating procedures might also be finalised at an early stage. If so, this information should be included in the part of the safety report submitted at this stage.

185 At this pre-construction stage the competent authority will assess, as far as it can, whether the purposes of the safety report in Part 1 of Schedule 4 have been fulfilled. If there are matters which require attention these will be confirmed, in writing, to the operator. The nature of, and timescales for, any remedial action will be discussed with the operator.

7(3)

186 For guidance on the actual content of safety reports see Schedule 4.

Regulation

7(4)

(4) Without prejudice to the requirements of regulation 18 (prohibition of use), an operator shall ensure that the construction of an establishment is not started until he has received from the competent authority the conclusions of its examination of the report sent pursuant to paragraph (1).

Guidance

7(4)

187 Operators must not begin any construction work until they receive the competent authority's conclusions on the pre-construction safety report. Although regulation 2(5) says that, for the purpose of these Regulations, the start of construction of an establishment is the beginning of the construction of any installation, this does not prevent early preparatory work such as levelling or extending services to a site. However, any work to do with the positioning of processes, storage, pipelines, control rooms or offices, internal means of access etc, which would have a significant impact on safety and would be costly and time-consuming to reverse, must not be started before the competent authority has communicated the conclusions of its examination of the safety report. This is to give the competent authority time to decide whether there is a serious deficiency in the prevention and mitigation measures which would require prohibition at the pre-operation stage. Although construction cannot be prohibited, the competent authority will make it clear to an operator if it has identified a deficiency which is sufficiently serious for it to prohibit operation when construction is complete, for example if it was proposed that bulk LPG tanks were to be installed close together without adequate means of fire protection.

Regulation

7(5)

(5) Within a reasonable period of time prior to the start of the operation of an establishment, the operator of the establishment shall, subject to paragraph (12), send to the competent authority a report containing information which is sufficient for the purposes specified in Part 1 of Schedule 4 and comprising at least the information specified in Part 2 of that Schedule, except that this paragraph shall not require the report to contain information already contained in the report sent pursuant to paragraph (1) if that information is still valid.

Guidance

7(5)

188 All the required information should be submitted before operation begins. Start of operation is taken to be the first time that dangerous substances are introduced into the plant and will include commissioning if dangerous substances, in any quantity, are used at that stage. Any information which was submitted before construction does not need to be resubmitted before operation if it was complete in terms of scope and level of detail. Information would need to be resubmitted in the event of changes such as significant modifications during construction and commissioning. The part of the safety report submitted before operation should build upon, and update, the earlier report and describe how any previously outstanding safety and environmental issues have been resolved. The two parts of the report should, together, allow the competent authority to see the whole argument on how the measures necessary to prevent and mitigate a major accident have been taken. Though part of the safety report will always be required to be submitted before construction, there is nothing to prevent operators integrating this with the pre-operational part and submitting this complete safety report before operation. The pre-operation part of the safety report should include those elements which it was unreasonable to expect at the pre-construction stage. Operational systems of prevention, control and mitigation, together with management systems, must now be included to form a complete report.

189 The timing of submissions before operation should be influenced by the same factors as for those before construction. A 'reasonable period' before operation for submission is normally up to six months. This could be less where the pre-construction submission was comprehensive or where there had been substantial discussion between the operator and competent authority before the formal submission.

Guidance

7(5)

190 Operators of establishments brought into top-tier by a change in quantity of dangerous substance already present there must prepare their safety report in advance of the increase to comply with this regulation as regulation 2(6) makes the start of operation to be the time when the quantity exceeds the top-tier threshold. Operators of establishments brought into top-tier by a change in classification or threshold or by a change in knowledge of dangerous substances that might be generated in a major accident should refer to paragraph 200.

Regulation

7(6)

(6) *Without prejudice to the requirements of regulation 18 (prohibition of use), an operator shall ensure that the operation of an establishment is not started until he has received from the competent authority the conclusions of its examination of the report sent pursuant to paragraph (5).*

Guidance

7(6)

191 Operators must not start operations until they have received the conclusions of the examination of the safety report from the competent authority. Operators run the risk of delay if they provide safety reports close to their planned start-up time or planned commissioning period.

192 The competent authority's examination of the safety report will, as before, lead to discussion with the operator about any improvements necessary to ensure that the purposes set out in Schedule 4 have been fulfilled. At this stage, however, if there is evidence of serious deficiency in any of the measures taken, or proposed, for the prevention and mitigation of major accidents, the competent authority is required by regulations 17 and 18 to prohibit the operation of those parts of any installation which are seriously deficient.

193 In all cases the competent authority will communicate the conclusions of its examination of the safety report to the operator in writing. Further information on how it will handle the examination of safety reports and on prohibition is in the guidance to regulations 17 and 18.

Regulation

7(7)

(7) *The operator of an existing establishment shall, subject to paragraph (12), send to the competent authority a report containing information which is sufficient for the purposes specified in Part 1 of Schedule 4 and comprising at least the information specified in Part 2 of that Schedule.*

Guidance

7(7)

194 This creates a duty on establishments which already existed on 1 April 1999, ie they meet the definition of 'existing establishment' in regulation 2(7). Operators of these must prepare a safety report by the time set out in regulation 7(8).

Regulation

7(8)-(10)

(8) *The report referred to in paragraph (7) shall, subject to paragraph (10), be sent -*

(a) *in the case of an establishment in respect of which a CIMAH report has been sent to the Executive -*

- (i) *within such period after the coming into force of these Regulations that a report would have been required to have been sent to the Executive pursuant to regulation 8(2) of the 1984 Regulations if those Regulations had remained in force; or*
- (ii) *by 3 February 2001,*

whichever is earlier, except that where the period referred to in head (i) above expires before the date specified in paragraph (9) the report may be sent at any time before that date;

(b) *in any other case by 3 February 2002.*

Regulation

(9) *The date referred to in paragraph (8)(a) is 3 February 2000 or such later date (no later than 3 February 2001) as may be agreed in writing by the competent authority in respect of the establishment concerned.*

(10) *Where, in a case referred to in paragraph (8)(a), different CIMAH reports have been sent to the Executive relating to different industrial activities undertaken at the same establishment -*

- (a) *it shall be sufficient compliance with paragraph (7) if the report referred to in that paragraph is sent to the competent authority in parts, each part relating to an industrial activity to which a CIMAH report related and containing, in respect of that activity, the information referred to in that paragraph, and*
- (b) *where sub-paragraph (a) of this paragraph is relied on, paragraph (8)(a) shall have effect in relation to each part as if the reference in head (i) of that paragraph to a report were a reference to the report relating to the industrial activity concerned.*

7(8)-(10)

Guidance

195 These are transitional arrangements which no longer have any effect.

Staged submissions

196 The CIMAH Regulations required operators to produce a safety report for each industrial activity under their control. Because many operators had more than one industrial activity on their sites, there was often more than one safety report for a site, each produced at different times. To avoid duplication of information that was common to more than one installation, it was usual practice for operators to produce a core report containing the common information, together with individual, installation-specific reports containing the information which was unique to each installation. Under CIMAH, safety reports were required to be updated every three years, including core reports. Because the reports were produced at different times, they would be updated at different times, as each one came to its own three-year anniversary. Operators of COMAH establishments that were previously subject to the CIMAH Regulations and had submitted CIMAH safety reports in this way can continue this approach under COMAH. However, if operators do submit their COMAH report in this way, they should ensure that all the purposes and information requirements of Schedule 4, Part 2, are addressed. They should include, where appropriate, the consequences on the installation of accidents on other parts of the establishment and vice versa. Any issues to do with internal transportation etc, which might be relevant to major accidents but were not dealt with by the CIMAH reports, must also be addressed.

197 If operators chose to submit the COMAH safety reports for their establishment in parts, they had to do so within the timescales set out in the Regulations. The timescales were based around the dates on which the CIMAH reports would have been due for their three-year update, had the CIMAH Regulations not been repealed. Note that:

- (a) each installation-specific CIMAH report that would have fallen due for update between 1 April 1999 and 3 February 2001 had to be replaced by one conforming to the COMAH Regulations at its three-year CIMAH anniversary. In addition, the core report had to be replaced by a COMAH equivalent when the first installation-specific report came due for replacement, even if its own three-year anniversary had not arrived. However, parts of the COMAH report due for submission before 3 February 2000 did not have to be submitted until 3 February 2000;
- (b) CIMAH reports which became due for update after 3 February 2001 had to be replaced by COMAH equivalents by 3 February 2001.

7(8)-(10)

Guidance

198 When the final CIMAH report had been replaced by its COMAH equivalent, all the parts together formed the COMAH safety report for the establishment, as required by regulation 7. The operator had to be sure that between them they provided, for the establishment, all the information detailed in Schedule 4, Part 2, and fulfilled the purposes set out in Schedule 4, Part 1.

199 Operators did not have to submit their COMAH safety report in parts as described above. They could, instead, have provided a single COMAH report covering all aspects of major accidents. If they chose this option, the COMAH safety report had to be submitted by the date that the first CIMAH update would have been due unless that date fell before 3 February 2000, in which case it had to be submitted by 3 February 2000.

7(8)-(10)

Regulation

(10A) Where paragraphs (1) to (10) do not apply, the operator shall, subject to paragraph (12), without delay, but at all events within 1 year after the establishment becomes subject to this regulation, send to the competent authority a report which is sufficient for the purpose specified in Part 1 of Schedule 4 and comprising at least the information specified in Part 2 of that Schedule.

7(10A)

Guidance

200 Operators of establishments which become top-tier due, for example, to:

- (a) a change in the CHIP classification of a substance which means an existing quantity then exceeds the threshold;
- (b) a change to a qualifying quantity in Schedule 1;
- (c) a change in knowledge of dangerous substances generated during loss of control of an industrial chemical process;

must submit their safety report as quickly as possible but no later than 12 months from when regulation 7 first applies.

7(10A)

Regulation

(11) All or part of the information required to be included in a safety report may be so included in a safety report by reference to information contained in another report or notification sent to the competent authority, the Executive or the Agency pursuant to a requirement imposed by or under any enactment or contained in an application for a hazardous substances consent.

7(11)

Guidance

201 Operators may be required to produce health, safety and environmental documentation by other legislation. The HSW Act and MHSWR require policy statements and risk assessments. The impact of a development on the environment will have been documented if the proposal is within the scope of the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988 and related regulations or, in Scotland, Part II of the Environmental Assessment (Scotland) Regulations 1988 and related regulations. The Environmental Protection Act 1990 set up a system whereby operators of certain processes have to submit applications for authorisations from SEPA (in Scotland) or, in England and Wales, the EA and/or local authority. This regime was strengthened by the Pollution Prevention and Control Act 1999 which implemented the Directive on Integrated Pollution Prevention and Control (96/61/EC). In addition there may be relevant information in any hazardous substances consent granted under the Planning (Hazardous Substances) Act 1990 and, in Scotland, the Planning (Hazardous Substances) (Scotland) Act 1997. This requires operators to seek a consent from the hazardous substances or planning authority to have present on land dangerous substances (including those defined in Schedule 1 of COMAH) above prescribed threshold quantities.

202 Operators have the flexibility to use this other documentation in their safety reports. For example, operators who have submitted an application for hazardous substances consent will have already provided:

7(11)

Guidance

- (a) a description of the dangerous substances, vessel sizes and locations; and
- (b) pressures, temperatures and inventories of those substances; before the safety report is submitted. This will provide some of the information detailed in Schedule 4, Part 2.

203 In such circumstances operators may make references to these documents but only where the other documents contain all the necessary information in terms of scope and level of detail and if the information is up to date.

204 The safety report does not need to contain all the documentation relevant to major hazards. Rather it should include sufficient information to demonstrate that the measures necessary to prevent and mitigate major accidents have been taken and that it has fulfilled the purposes of, and contains the information set out in, Schedule 4. The report should cross-reference supporting documentation.

205 For further information see the guidance on Schedule 4.

7(11)

Regulation

(12) Where it is demonstrated by the operator of the establishment to the satisfaction of the competent authority that particular dangerous substances present at an establishment, or any part thereof, are in a state incapable of creating a major accident hazard, the competent authority may in writing and in accordance with criteria established by the European Commission pursuant to Article 9.6(b) of the Directive, limit the information required to be included in the safety report for the establishment to those matters which are relevant to the prevention of residual major accident hazards and the limitation of their consequences for persons and the environment.

7(12)

Guidance

206 If an operator of an establishment within the scope of the Regulations can demonstrate that particular dangerous substances in the establishment are in such a state that they cannot give rise to a major accident hazard, the operator can apply to the competent authority to limit the information to be included in the safety report. If it is satisfied with the case, the competent authority will write to the operator explaining what will be required in the safety report. The criteria on which this decision will be based have been set out by the European Commission in conjunction with the Member States. Full details are given in Appendix 1 but they can be summarised as:

- (a) physical form of the substance;
- (b) containment and quantities;
- (c) location and quantities; and
- (d) classification.

207 Even if all the dangerous substances present qualify for this derogation, the operator will still need to prepare a safety report to include the safety management system and other elements of the MAPP.

208 The application must be a specific application for one or more substances at a specified establishment, although trade associations may choose to offer their members some generic material to be used in this specific application. The dispensation, if granted, will apply only to the specified substance(s) referred to in the application in the specified circumstances. Any changes, for example to the form of these substances or to the circumstances in which they are stored, must be notified to the competent authority in advance, as the dispensation may no longer apply.

209 If the competent authority grants a dispensation for particular substances, then the safety report for the establishment has only to address the remaining major accident hazards, ie those relating to the other dangerous substances, or the

7(12)

Guidance

7(12)

same dangerous substance in other locations, not included in the dispensation.

210 The competent authority has to provide the European Commission with details of any dispensations granted.

Regulation

7(13)

(13) An operator shall provide to the competent authority such further information as it may reasonably request in writing following its examination of the safety report, and the information shall be so provided within such period as the competent authority specifies in the request.

Guidance

7(13)

211 It may be that the information in a safety report is not sufficient for the competent authority to assess it properly. In these circumstances it may, by written request, require further information from the operator, who must provide it. In the extreme, it may require the safety report, or parts of it, to be revised and resubmitted.

Regulation

8(1)

Regulation 8 Review and revision of safety report

(1) Where a safety report has been sent to the competent authority the operator shall, subject to paragraph (3), review it—

- (a) whenever the operator makes a change to the safety management system (referred to in paragraph 1 of Part 1 of Schedule 4) which could have significant repercussions with respect to the prevention of major accidents or the limitation of consequences of major accidents to persons and the environment;*
- (b) whenever such a review is necessary because of new facts or to take account of new technical knowledge about safety matters; and*
- (c) fully at least every 5 years,*

and where in consequence of that review it is necessary to revise the report, the operator shall do so forthwith and notify the competent authority of the details of such revision.

Guidance

8(1)

212 The safety report must be reviewed at certain times and revised as necessary to reflect changes at the establishment. Details of any revision must be supplied to the competent authority, preferably as an updated report submitted as a whole, with the changes clearly marked. However, if a report was originally submitted in loose-leaf ring binders, submission of only the amended pages is acceptable. This must include any pages which needed consequential amendments, for example any other pages that contain references to the revised pages where such things as paragraph numbers have changed. The revised safety report must be kept complete and up to date.

213 The circumstances in which such updates and reviews are necessary are as follows.

Changes to the SMS

214 Operators must consider whether changes to their SMS (ie organisational change) might have significant repercussions on their ability to prevent or mitigate a major accident. Operators need to decide which changes made to the SMS should be notified, but examples of the types of changes which may be considered significant by the competent authority include:

- (a) proposals for significant reorganisation of the management structure;
- (b) contractisation, delayering, demanning, or multi-skilling in relation to the

Guidance

- operation or maintenance of the establishment;
- (c) changes in health and safety policy, procedures, standards, aims, objectives or priorities, including changes to the MAPP or SMS.

215 In cases of doubt operators are advised to consult the competent authority.

At other times

216 Safety reports should be reviewed and, if necessary, updated where justified by new facts or to take account of new technical knowledge about safety issues. The following examples illustrate the kinds of things that would trigger a review:

- (a) a substance which is present on site, but not previously classified as a dangerous substance, is reclassified as dangerous, or the reverse;
- (b) incidents which reveal potentially hazardous reactions or loss of control scenarios not previously considered;
- (c) recommendations made following a major accident or public enquiry; and
- (d) lessons from worldwide incidents.

217 In such circumstances the operator should review and, if necessary, revise the safety report. Failure to do so may result in enforcement action.

218 Only changes relevant to the hazards identified, the prevention and control measures required or mitigatory arrangements necessary, are likely to justify review and revision of the report. Trivial changes are unlikely to justify a review unless the cumulative effect of many such changes is significant.

At least every five years

219 Operators should review their safety reports no later than five years after the original submission or last five-year review and any necessary revisions should be carried out immediately. A full review of the safety report may be conducted at any time before the five-year time limit expires, for example as part of a programme of SMS audit/review or when carrying out interim 'change' reviews. Provided that the entire report is reviewed and the review is adequately documented the five-year period will start again.

220 It is important that the review not only details the changes that have occurred, but also assesses the significance of the changes in terms of the identification, prevention and control and mitigation of major accidents. This includes environmental changes too; for example, changes in the land use of areas surrounding COMAH establishments, including changes in population; or changes in the conservation designations of the surrounding area. Particular attention should be given to the cumulative effects of any minor changes that have taken place over the period.

221 One of the purposes of the review is to see whether the standards, both technical and procedural, remain appropriate in the light of new knowledge and technological developments. It may not always be sufficient for the operator to maintain the plant and systems in an 'as built' condition. If the review reveals that further measures are necessary, these additional measures should be taken.

8(1)

Guidance

8(1)

What to review

222 The five-yearly review should cover the whole of the report but other reviews need only cover the relevant parts. Operators must inform the competent authority of the details of any revisions made as a result of the review by providing copies of the revised report or amended parts. They should clearly indicate the changes from the previous submission, preferably by highlighting the changes in the document.

Regulation
8(2)

(2) *Where a safety report has been reviewed pursuant to paragraph (1)(c) but not revised, the operator shall notify the competent authority of that fact.*

Guidance

8(2)

223 It may be that a review concludes that the safety report does not need any revision. If so, the operator must notify the competent authority of this, giving reasons as appropriate. The notification will be placed on the public register (see Schedule 8).

Regulation

8(3)

(3) *Where, pursuant to regulation 7(10), a report has been sent to the competent authority in parts, each part shall be reviewed pursuant to paragraph (1)(c) within 5 years from the time that part was sent and at least every 5 years after that review; and every review of the last part sent shall include consideration of whether the parts together contain, in relation to the establishment, all the information referred to in regulation 7(7).*

Guidance

8(3)

224 Operators of establishments that were previously CIMAH top-tier could submit their COMAH safety report in parts (regulation 7(10)) but had to then review each part not later than five years after it was submitted. However, in order to meet the requirements of the Directive, the review of the final part had to consider whether all the parts together fulfilled the purposes set out in Schedule 4, Part 1, and contained all the information detailed in Schedule 4, Part 2.

225 This review of the whole report with the final part was to ensure that the whole report properly considered all the inter-related on-site infrastructures which might have an effect on the causes or consequences of major accidents. It also ensured that the implications of changes to plant or management systems at any part of the establishment were thought through fully.

Regulation

8(4)

(4) *Where an operator proposes to modify the establishment or installation in it, the process carried on there or the nature or quantity of dangerous substances present there and that modification could have significant repercussions with respect to the prevention of major accidents or the limitation of consequences of major accidents to persons and the environment, he shall in advance of such modification -*

- (a) *review, and where necessary revise, the safety report prepared in respect of the establishment, installation, process or dangerous substances as the case may be; and*
- (b) *notify the competent authority of the details of such revision.*

Guidance

8(4)

226 Operators must review and, if necessary, revise their safety reports before certain modifications are made. If the safety report has been submitted as a core with several installation-specific parts, operators may revise only the relevant part(s) and the core, if necessary. This is an extension of the duties to manage change and undertake audits and reviews of the MAPP and safety management system set out in Schedule 2. It is aimed at modifications to installations, establishments, storage facilities, processes or the nature or quantity of dangerous substances which could have significant repercussions on major accident hazards. Changes which either increase or decrease hazard or risk are important. It is not intended to deal with routine or trivial changes.

Guidance

227 Whether a modification has significant repercussions will depend on the degree to which it introduces a new major accident hazard, or increases or decreases the risk from an existing hazard. It is not possible to give precise rules for what might be significant; this will depend on individual circumstances. However, the overall goal is to ensure that major accidents are prevented and the consequences of any that do occur are kept to a minimum. Examples of the sorts of changes which may have significant repercussions include:

- (a) a change in the quantity of a dangerous substance (but see also the guidance on regulation 6(4) and Schedule 4, Part 2, (3)(c));
- (b) changes of phase of a dangerous substance, for example a change from liquid to gaseous chlorine;
- (c) the introduction of new, or removal of existing, dangerous substances;
- (d) new processes;
- (e) changes to storage facilities;
- (f) changes to a safety instrumented system;
- (g) changes to the mode of delivery or transport of dangerous substances, for example a change from daily road tanker deliveries to weekly ship deliveries;
- (h) changes to the design or location of control rooms and/or the number of people present within them;
- (i) changes to the location of occupied buildings and/or the number of people present within them; and
- (j) changes to the original design parameters such as process operating conditions or practices, changed throughput, design life extensions or removal of safety-critical plant.

228 The operator must review the safety report to ensure it will continue to provide an accurate description of conditions on site and an adequate demonstration that the purposes in Schedule 4 have been met. If necessary, the report should be revised to take account of any changes and the competent authority notified of the revision(s). Operators may contact it for advice if they are unsure whether a proposed modification justifies updating of the report.

229 The review and any necessary revision must be done before the modification comes into effect. Operators also have to notify the competent authority of the details of the revision by the same time. Although operators may arrange and implement the modifications without any communication from the competent authority they would be wise to seek its views before the changes are made. Operators risk enforcement action if they implement changes which the competent authority later judges to be to an unsatisfactory standard.

230 If a modification requires a re-application for hazardous substances consent, no work may go ahead until that has been granted. Submitting details of revisions to safety reports well in advance is advisable. A new installation at an existing establishment will require a substantial period of time, not less than six months, but for most modifications a much shorter period will be appropriate.

Status of revised reports

231 When a safety report has been revised, the revised report becomes the safety report for the establishment and replaces any earlier version. The new report is subject to assessment by the competent authority under regulation 17 and the conclusions of its examination will be passed to the operator. The public version of this revised report will be placed on the public register in accordance with Schedule 8.

Guidance

8(4)

Further guidance

232 The competent authority has produced guidance for operators on review and revision of safety reports.⁹

PART 4: EMERGENCY PLANS

Guidance

9

233 Detailed guidance on all aspects of emergency planning can be found in HSE's *Emergency planning for major accidents: Control of Major Accident Hazards Regulations*.¹ This is relevant to regulations 9-12 and Schedule 5.

Guidance

9

Regulation 9 On-site emergency plan

234 Note: Appendix 3 gives details on timescales for completion of emergency plans in various circumstances.

Regulation

9(1)

(1) *Every operator of an establishment shall prepare an emergency plan (in these Regulations referred to as an "on-site emergency plan") which shall be adequate for securing the objectives specified in Part 1 of Schedule 5 and shall contain the information specified in Part 2 of that Schedule.*

Guidance

235 Operators of top-tier sites must prepare adequate emergency plans for dealing with the on-site consequences of possible major accidents and providing assistance with off-site mitigatory action. These plans should be in writing and cover the full range of possible major accidents including the operator's response to reasonably foreseeable low-probability, high-consequence events, such as catastrophic vessel failure.

236 The safety report should have identified the potential major accident scenarios, and these should all be taken into account when developing the plan. The degree of planning should be proportional to the probability of the accident occurring.

237 If COMAH and other legislation requiring emergency plans (for example, the Nuclear Installations Act 1965) apply to the same site, the operator may prepare a single emergency plan to cover all the requirements.

Objectives

238 Part 1 of Schedule 5 details the objectives of on-site and off-site emergency plans. Consideration must be given to the potential on-site consequences to people, the environment and property and how to assist with off-site mitigatory action:

- (a) 'people' includes all those who may be on site at any time, such as operatives, supervisors, managerial staff, non-production staff, contract workers and visitors;
- (b) 'environment' comprises built features, air, water, soil, flora and fauna, including those with protected, designated or controlled status, such as controlled waters, any sensitive land within the site boundaries, protected buildings and monuments, protected ecological species, and protected habitats or designated areas. If any of these features are found within the boundary of the establishment and could be affected by a major accident they should be considered by the emergency plan; and
- (c) 'property' to be considered in the development of the on-site emergency plan includes hazardous process plant and storage plant, along with those buildings with a function particularly related to safety or protection of the environment, such as control rooms.

239 The objectives include the requirement to communicate the necessary information to the public, the emergency services and other authorities concerned in the area. The necessary information is that which allows those receiving it to

9(1)

Guidance

decide what actions they need to take for their own safety and to mitigate the consequences of the accident. Other authorities will include the local authority, the appropriate environment agency, the health authority and the water companies/ authorities.

240 The plan must establish the system for managing information in the event of a major accident. This should ensure that necessary information can be identified and communicated to people on site, the emergency services and the other authorities identified in the plan as having a role to play and requiring information. Even where a major accident has no potential for off-site consequences, there are considerable benefits in keeping those in the vicinity of the establishment informed about what is happening.

241 The on-site emergency plan details the roles that those who work on the establishment will have to play in the event of a major accident. It should include the arrangements that are established for assisting with emergency response off-site. The plan must dovetail with the off-site plan, so that emergency services and those responsible for communicating information to those outside the establishment know where and in what form they will receive information.

242 The objectives include providing for the restoration and clean-up of the environment after a major accident. The plan should describe the arrangements for restoration of the environment after an accident, taking account of the particular environmental hazards associated with the activities at the establishment. It should also consider possible knock-on effects on the food chain, for example through the contamination of crops or grazing land.

9(1)

Regulation

(2) *The on-site emergency plan shall be prepared -*

- (a) *in the case of an existing establishment where the industrial activity carried on there was, immediately before the coming into force of these Regulations, subject to the requirements of regulation 10 of the 1984 Regulations, by 3 February 2001;*
- (b) *in the case of any other existing establishment, by 3 February 2002;*
- (c) *in the case of an establishment which has not started to operate, before it starts to operate;*
- (d) *in any other case, without delay but at all events within 1 year after the establishment becomes subject to this regulation.*

9(2)

Guidance

243 The references to existing establishments are now irrelevant as the time provisions are now spent. Operators of establishments which become top-tier COMAH sites due to an increase in inventory must prepare their plans before they begin operation (regulation 2(6) makes the start of operation to be the date when the top-tier threshold is exceeded).

244 Operators of establishments which become top-tier due to:

- (a) a change in the CHIP classification of a substance which means an existing quantity then exceeds the threshold;
- (b) a change to a qualifying quantity in Schedule 1;
- (c) a change in knowledge of dangerous substances generated during loss of control of an industrial chemical process;

must prepare their on-site emergency plans as quickly as possible but no later than 12 months from the date when regulation 9 first applies.

9(2)

Regulation

9(3)

- (3) *The operator shall consult -*
- (a) *persons working in the establishment;*
 - (b) *the Agency;*
 - (c) *the emergency services; and*
 - (d) *the health authority for the area where the establishment is situated; on the preparation of the on-site emergency plan.*

Guidance

9(3)

245 Employees and the emergency services identified as having a role to play in the emergency response must be consulted during preparation of the plan. As well as those employed directly by the operator, consultation should include all those normally working at the establishment, for example relevant long-term sub-contract personnel. Consultation with employees and with contract staff may either be directly or through appropriately appointed employee representatives (see 'Notes on the COMAH Regulations' on page 1).

246 Health authorities should also be consulted as they will have to deal with any injuries which arise and will be responsible for ensuring that satisfactory arrangements are in place for handling the health-care aspects of the response to a major accident. This will include ensuring that arrangements are in place with acute hospital trusts and other trusts responsible for managing primary and community care, for the treatment of any casualties that may arise. It will also include determining, where appropriate, the most suitable holding locations for supplies of up-to-date stocks of antidotes.

247 The Agencies have specific functions in the event of a major industrial accident in connection with mitigating the impacts on the environment. For this reason the Agency is a named statutory consultee on the preparation of the on-site emergency plan, to ensure that its arrangements 'dovetail' with those of the operator.

Regulation

9(4)

- (4) *The operator shall consult the local authority in whose area the establishment is situated on the preparation of an on-site emergency plan, except this shall not apply where the local authority has been exempted from the requirement to prepare an off-site emergency plan in respect of the establishment pursuant to regulation 10(7).*

Guidance

9(4)

248 For establishments for which the local authority is required to produce an off-site emergency plan under regulation 10(1) (and which have not been exempted from this requirement by regulation 10(7)), the local authority must be consulted by the operator during the preparation of the on-site emergency plan. The consultation will be on the aspects of the on-site emergency plan in which off-site agencies have a role and which have interfaces with the off-site emergency plan. This is to ensure that there is adequate dovetailing between the two plans which apply to the establishment.

Regulation

10(1)

Regulation 10 Off-site emergency plan

- (1) *The local authority, in whose area there is an establishment, shall prepare an emergency plan (in these Regulations referred to as an "off-site emergency plan") in respect of that establishment, and such a plan shall be adequate for securing the objectives specified in Part 1 of Schedule 5 and shall contain the information specified in Part 3 of that Schedule.*

Guidance

10(1)

249 The local authority for the area where a top-tier establishment is located must prepare an adequate emergency plan for dealing with the off-site consequences

Guidance

of possible major accidents. As with the on-site plan, it should be in writing. The off-site emergency plan details the roles to be carried out by emergency services, local authorities and other external organisations in the event of a major accident. This includes the arrangements established to help with the emergency response on site. The degree of planning should be proportional to the probability and consequences of the accident occurring.

Objectives

250 The objectives given in Part 1 of Schedule 5 also cover off-site emergency plans. Consideration must be given to the potential off-site consequences to people, the environment and property (see paragraph 238) and how to assist with on-site mitigatory action.

251 The objectives include provision for the restoration and 'clean up' of the environment following a major accident. In accordance with the guidance on regulation 4 (see paragraph 122) operators must take appropriate measures or arrange for them to be taken. These remedial measures should be proportionate to the level of harm caused by the accident and the risk of continuing harm to people and the environment. The plan will need to detail the arrangements and resources to ensure timely and effective restoration of the environment in the event of an accident. The particular environmental hazards associated with the operations carried out on the establishment and the specific off-site environmental conditions should have been identified by the operator in his safety report. Priority will need to be given to remedial measures which would prevent or mitigate further damage to the environment or indirectly to human health. At some establishments impacts may be too many and varied for dedicated arrangements to be made in advance for every scenario. Off-site plans should therefore go as far as arranging for sampling and analysis in order to assess actual impact and bringing together key stakeholders and resources to agree priorities for community clean-up and restoration.

252 Remedial measures might include, for example, restricting access to contaminated areas; neutralising, removing and disposing of chemical contaminants; and removing dead animals, plants or contaminated soil or parts of the built environment. While the plan should identify the resources and expertise likely to be needed, each accident will need to be handled individually in consultation with the appropriate agencies. Longer-term restoration plans need to consider what action is required to restore the environment. This might include re-introducing species, and repairing damaged parts of the built environment (for example, buildings of special architectural or historic interest, ancient monuments and architectural areas). Part of the process should be to review the effectiveness and extent of the restoration and to revise the approach if needed. This implies a need for monitoring recovery of damaged areas or ones that have deteriorated.

253 The plan should also consider possible effects on the food chain, ie through the contamination of crops or grazing land. This may require giving necessary information to, for example, the Department for Environment, Food and Rural Affairs, the Food Standards Agency, the National Assembly for Wales and the Scottish Executive Rural Affairs Department.

254 Some local authorities will have several top-tier establishments in close proximity and will need to prepare emergency plans which take account of the potential consequences from accidents on all of them. Each must have its own off-site emergency plan, developed in collaboration with the relevant operator. This may, under some circumstances, be addressed by local authorities having a generic plan, with separate detailed annexes for each establishment as appropriate.

10(1)

Regulation

(2) *The off-site emergency plan shall be prepared no later than 6 months (or such longer period, not exceeding 9 months, as the competent authority may agree in writing) after -*

- (a) *the receipt by the local authority of a notice from the competent authority informing the local authority of the need to prepare an off-site emergency plan in respect of the establishment;*
- (b) *the time an on-site emergency plan is required to be prepared for the establishment pursuant to regulation 9; or*
- (c) *the receipt by the local authority of the information referred to in paragraphs (3) and (5);*

10(2)

whichever is later.

Guidance

255 The local authority must prepare the off-site emergency plan within six months of:

- (a) being notified by the competent authority that a plan is needed; or
- (b) the date by which the operator must prepare the on-site plan; or
- (c) receiving the information needed to prepare the plan;

whichever allows the longest time. The competent authority may extend this to a maximum of nine months.

256 The operator is required by regulation 9(4) to consult the local authority during the preparation of the on-site emergency plan. Therefore, as soon as possible before a new establishment begins operation, the operator should enter into discussions with the local authority to give the latter the opportunity to start developing the off-site emergency plan.

257 There is the possibility of an establishment operating for up to nine months with no off-site emergency plan in place. To minimise the risk to those in the vicinity of the establishment during this time, it is recommended that interim arrangements are put into place, based on any generic emergency planning arrangements the local authority may have, any existing COMAH emergency plans and the information supplied by the operator. These arrangements should be developed in consultation with the emergency services and each health authority for the area in the vicinity of the establishment. They should give directions for coping with any incidents with off-site consequences, until the COMAH off-site emergency plan is in place.

258 When new COMAH establishments are proposed, the emergency planning department should be consulted on the application for consent under the provisions of the Planning (Hazardous Substances) Regulations 1992, in England and Wales, or the Town and Country Planning (Hazardous Substances) (Scotland) Regulations 1993, in Scotland. The emergency planners should be able to give initial consideration to the implications for emergency planning of the operation of a new COMAH establishment at that stage.

10(2)

Regulation

(3) *An operator shall supply to the local authority in whose area the establishment is situated the information necessary for the purpose of enabling the authority to prepare the off-site emergency plan.*

(4) *The information referred to in paragraph (3) shall be supplied no later than the time an on-site emergency plan is required to be prepared for the establishment pursuant to regulation 9.*

10(3)-(4)

Guidance

259 The local authority cannot prepare an off-site emergency plan for an establishment without obtaining necessary information from the operator. This information will not normally be the entire safety report. The operator should provide only that information which is relevant to preparing the off-site plan, such as details of accident consequences. The operator must provide this information by the date on which the on-site plan has to be prepared to comply with regulation 9(2) and should also ensure that any information supplied to the local authority is updated as necessary in the light of any other changes.

260 Some sites may be designated by the competent authority as ‘domino sites’, which are sites where the likelihood or consequences of a major accident may be increased because of the location and proximity of other COMAH establishments and the dangerous substances present there. These sites need special consideration in terms of emergency planning, and the testing of the off-site response.

261 COMAH establishments designated as domino sites must exchange information to enable them to take account of the overall hazard in their:

- (a) major accident prevention policy documents;
- (b) safety reports;
- (c) on-site emergency plans; and
- (d) information supplied to the local authority for the preparation of off-site emergency plans.

262 More information on domino sites can be found in the guidance on regulation 16.

10(3)-(4)

Regulation

(5) *The operator shall supply to the local authority any additional information it may reasonably request in writing to enable the off-site emergency plan to be prepared, and the information shall be so provided within such period as the local authority specifies in the request.*

10(5)

Guidance

263 The local authority may ask the operator for additional information, in which case the six-month period of regulation 10(2) starts from receipt of the additional information. The additional information requested must be relevant to the requirements of those preparing the off-site emergency plan.

10(5)

Regulation

(6) *The local authority shall consult the operator, the competent authority, the Agency, the emergency services, each health authority for the area in the vicinity of the establishment and such members of the public as it considers appropriate on the preparation of the off-site emergency plan.*

10(6)

Guidance

264 Local authorities must consult the emergency services in the preparation of the off-site emergency plan, so that their concerns and recommendations are taken into account in developing and resourcing the plan. The Home Office’s publication *Emergency response and recovery*¹⁰ and the former Scottish Office’s *Dealing with disasters together*¹¹ contain guidelines for local authorities, emergency services and others. These highlight the importance of a combined response, from all agencies involved, ie integrated arrangements for emergency management.

265 The Agencies have specific functions in the event of a major industrial accident in connection with mitigating the impacts on the environment which go beyond their regulatory role as part of the competent authority. For this reason the Agency is a separate named statutory consultee on the preparation of the off-site emergency plan. This distinction reflects the different objectives and timetables for these consultations. The Agency is normally consulted early and regularly during the development of the off-site plan to dovetail its response with the local authority.

10(6)

Guidance

The competent authority is consulted to assess the regulatory sufficiency of the off-site plan.

266 The off-site plan must dovetail with the on-site emergency plan and the local authority will need to consult closely with the operator.

267 It will be necessary to consult the appropriate health authorities. They have a responsibility to contribute to safeguarding the public health of the population within their geographical area. They are required by NHS guidelines to have in place appropriate plans and arrangements to respond to non-communicable environmental hazards, such as a chemical release. It is therefore important for them to be aware of potential major accident risks, in order to dovetail their emergency plans and health service arrangements with those of the emergency services and local authority. The health authorities will themselves also consult, or facilitate consultation with, the appropriate hospital and emergency units and acute hospital trusts. Hospitals, accident and emergency departments and other trusts responsible for managing primary and community care within the vicinity of the establishment need, wherever possible, to be aware in advance of the possibility of dealing with, and treating, large numbers of people or casualties requiring symptomatic or special treatment.

268 It may also be necessary to consult other organisations in addition to those specifically identified by the Regulations who might become involved and whose roles would need to be included in the off-site emergency plan. These organisations may include the Department for Environment, Food and Rural Affairs, the Food Standards Agency, the National Assembly for Wales and the Scottish Executive Rural Affairs Department and water companies/authorities.

269 The local authority must also consult the public when preparing the off-site emergency plan. This could include:

- (a) consultation with elected councillors at county, borough or parish level (or equivalents); or
- (b) consultation with specially established groups representing residents in the vicinity of the site.

270 Elected councillors will be able to use appropriate channels of communication with the public in the vicinity of the major hazard establishment to obtain their views on the developing emergency plan.

10(6)

Regulation

(7) The competent authority may in view of the information contained in a safety report exempt a local authority from the requirement to prepare an off-site emergency plan in respect of an establishment, and any such exemption shall be in writing and state the reasons for granting it.

(8) Where an exemption has been given under paragraph (7), the local authority shall, for the purposes of these Regulations and while the exemption is in force, have no function in relation to the preparation, review, testing and putting into effect of an off-site emergency plan for the establishment concerned.

10(7)-(8)

Guidance

271 The decision to exempt a local authority from the duty to prepare an off-site emergency plan for an establishment lies with the competent authority. An exemption will normally only be considered following a formal request including reasons. In principle, anyone could make such a request, but in practice it is likely to be the operator of the establishment or the local authority (who should inform the other of the request). If, having considered the request and the information in the safety report, the competent authority agrees that an exemption is appropriate, it will write to the local authority exempting it from the duty to prepare an emergency

10(7)-(8)

Guidance
10(7)-(8)

plan and explain its reasons for granting the exemption. The criteria to be used in reaching the decision will be the same as those used for the purposes of regulation 7(12). For further information on these criteria see paragraph 206 and Appendix 1.

Regulation

Regulation 11 Review and testing of emergency plans

(1) *A person who has prepared an emergency plan pursuant to a duty imposed on him by these Regulations shall at suitable intervals not exceeding three years -*

- (a) *review and where necessary revise the plan; and*
- (b) *test the plan and take reasonable steps to arrange for the emergency services to participate in the test to such extent as is necessary,*

and any such review shall take into account changes occurring in the establishment to which the plan relates and within the emergency services concerned, new technical knowledge, and knowledge concerning the response to major accidents, and, in the case of a review of an off-site emergency plan, shall involve consultation by the local authority of such members of the public as it considers appropriate.

11(1)

Guidance

272 At least once every three years, the on-site and off-site emergency plans must be both reviewed and tested. The first review and test must take place within three years of the first version of the relevant emergency plan being completed. If any deficiencies are revealed, the relevant plan(s) must be revised. This is in addition to the ongoing process of regular updates under the SMS, to reflect changes in the systems and organisations to which they refer. Operators must inform the local authority of any changes made to their on-site plans which would affect the off-site plans. Similarly, local authorities must inform operators of any changes made to off-site plans which would affect on-site plans.

Reviewing

273 Reviewing is a fundamental process, examining the adequacy and effectiveness of the components of the emergency plan, and how they function together. The review process must take into account:

- (a) all material changes in the activity;
- (b) any changes in the emergency services relevant to the operation of the plan;
- (c) advances in technical knowledge, for example new, more effective means of mitigation;
- (d) knowledge gained as a result of major accidents either on site or elsewhere; and
- (e) lessons learned during the testing of emergency plans.

274 A review of the adequacy and accuracy of the emergency planning arrangements should follow any modifications or other significant changes to the establishment. Under these circumstances, operators should not wait until the three-year review is due to review their emergency plans.

Testing

275 An emergency plan test is a task or tasks undertaken to give confidence in the accuracy, completeness and practicability of the plan.

276 Testing an emergency plan may consist of a live exercise or a table-top exercise supported by the testing of other components (which may be done at separate times), including the communication arrangements. Testing should

11(1)

Guidance

be carried out at least once every three years. Testing will usually examine the response during the first few hours. A table-top exercise should demonstrate whether the constituent parts of the plan, including the emergency response arrangements of different organisations, will work together. The testing of other components should demonstrate whether the plan can be put into effect successfully. The testing of some of the components should be done live, ie it should involve deployment of some personnel and resources as if they were responding to a real emergency.

277 A live exercise involves the deployment on the ground of the appropriate resources in a simulation of their actual response to an accident. This will normally be based around a simulated event that has been selected from the hazards identified in the safety report. Live exercises need to be very carefully planned as they are time-consuming and resource intensive, and it is important that when they are carried out the maximum benefit is gained from them.

278 Table-top exercises bring together the appropriate personnel and resources in one place to work through their roles in the event of an emergency, in a realistic way. As with a live exercise, a table-top exercise is usually centred around a simulated event selected from the hazards identified in the safety report. Table-top exercises are flexible and can test the response to more than one of the identified hazards with very little additional effort and expense.

279 Table-top exercises need to be supplemented by the live testing of some components of the emergency plan including, for example, the communication aspects. A 'control post' communication exercise examines the adequacy of the communication arrangements between all the key players in an emergency. It will normally involve all the appropriate resources at the posts that they would take up in the event of an accident, or at a suitable artificial location. Without deploying any resources, personnel work through the necessary communications that need to be carried out in response to an accident. The exercise may include simulating some of the potential problems that can be experienced during real incidents.

280 Information technology or virtual reality systems are being developed to allow for very realistic simulations of accidents and the response to them. Under some circumstances, such systems may have potential when carrying out table-top and 'control post' communication exercises.

281 Where it is suitable, the nature of the scenario should vary in each three-year cycle, to examine the range of emergency responses required for the foreseeable accidents.

282 All relevant staff in all shifts in all the relevant organisations should be fully trained in their expected response in the event of an emergency. Although there are clear training benefits to be gained from a test, it is not solely a training exercise. Emergency plan testing required under the Regulations is to demonstrate that the plans are accurate, complete and practicable.

283 There are considerable benefits to be gained from testing the on-site and off-site emergency plans (or parts of plans) at the same time, as well as potential financial savings from avoiding duplication. Testing both plans together will demonstrate how well they fit with each other. For example, the external agencies' roles in mitigation, both on-site and off-site, are described only in the off-site emergency plan; there is no such reference in the on-site plan. Exercising this part of the off-site emergency plan with the on-site emergency plan can test effective co-ordination of all emergency response personnel handling a major accident on the site. Agreement will need to be reached on the overall objectives of the testing and the best way of meeting them.

Guidance

284 The operator, the emergency services and the local authority should agree beforehand on the scale and nature of the emergency plan testing to be carried out.

285 Ideally, the debriefing following an emergency plan exercise should be carried out in an open and blame-free atmosphere. This should allow any problems in implementing the emergency plans to be identified, the reasons for the problems to be discussed and appropriate solutions to be considered.

286 In the aftermath of a major industrial accident, or a dangerous occurrence which had the potential to become a major accident, open discussion and impartial consideration may be difficult to achieve. The response to a real emergency cannot, therefore, be considered a suitable or adequate substitute for the testing of an emergency plan, although valuable lessons can be learned from real accidents.

On-site

287 Operators of establishments with a number of installations should consider testing the arrangements for each installation at least once during the three-year cycle. On some establishments there will be scope for economies of scale, using lessons learned from live exercises on some installations, supported by appropriate table-top exercises for other installations. This will depend upon similarities in the hazards and risks posed, and in the type of emergency response.

288 It is important that the lessons learned from such joint tests are fed back to all relevant managers, supervisors and site personnel. Conclusions should be drawn from the findings of the test in relation to all installations under examination.

289 Dealing with the on-site consequences of major accidents will usually require the assistance of the emergency services such as the fire brigade and therefore it may be appropriate for them to attend many of these tests, but not necessarily all. Other off-site agencies may wish to be involved in some of the exercises to meet their own training needs.

Off-site

290 Sufficient testing of an off-site emergency plan must be undertaken at least once every three years to give confidence in the plan. This need not necessarily involve a full-scale live exercise. Testing could consist of examining the principal components of the plan. These would include:

- (a) site visits by all off-site agencies with a role to play in the emergency response, for familiarisation;
- (b) 'control post' communication exercises to examine the adequacy of the communication arrangements between all the key players during an emergency; and
- (c) table-top exercises based on a suitable scenario or scenarios identified in the safety report, to examine the command and control arrangements and inter-agency liaison during an emergency.

291 Testing in this way should be co-ordinated and agreed locally to give the maximum benefit to local authorities, operators and emergency services. The three components must be examined at least once over the three years. There will be considerable benefits from carrying out some of the exercises, for example the site familiarisation visits and the 'control post' communication exercise, every year.

292 In some local authority areas, there may be scope for economies of scale within the testing regime. It may be possible for one exercise to test the off-site

Guidance

components of two or more establishments. This will depend upon similarities of the location and of the risk posed to the adjacent population and environment. Each establishment would have to test its own site-specific features in some other way, for example as a part of the on-site emergency plan test or the 'control post' communication exercise.

293 It is important that the lessons learned from such joint tests are fed back to all the relevant operators, emergency services and organisations. Conclusions should be drawn from the findings of the test in relation to all the establishments under examination.

294 When testing the off-site emergency plans for domino sites it may, in some circumstances, be appropriate to test the response to an accident caused by, or magnified by, a domino effect. This should test the off-site response of more than one COMAH establishment at the same time, with the initiating event for some of the accidents being an event on an adjacent site.

295 However, it may not be necessary to always test the off-site emergency plans of domino sites together. For example, a major accident may be foreseeable which, although it has potential off-site consequences, would not trigger a major accident at another domino site in the group; within such a scenario the individual domino site's emergency plan might be tested separately.

296 For a complex of establishments which are both top-tier COMAH and domino sites it may be appropriate to carry out a test for one of the establishments as a response to a domino event, either as a live or table-top exercise. The lessons learned from a test of this kind should be disseminated to all the other relevant establishments and considered when reviewing all the emergency plans.

Revising

297 To obtain the maximum benefit from testing emergency plans it is important to evaluate the lessons learned from these tests and other sources, to determine where modifications are required to the emergency plans, and to promote good practice. Revision must also take account of recommendations arising from testing. A record should be made of the recommendations and lessons learned from testing emergency plans. Amendments to the emergency plan can then be followed up to ensure that all the lessons learned from testing lead to improvements which can be traced through an audit trail. Information to the public should also be updated via the operator or local authority (see regulation 14) if necessary.

298 The original consultees (see regulations 9(3) and 10(6)) should also be consulted over any revisions to the emergency plan. Many will have been involved in the testing and evaluation stages too and may have a valuable contribution to any revision. The revised plan becomes the plan for the purposes of regulation 9 or 10 and must meet all the objectives of Schedule 5, Part 1.

11(1)

**Regulation
11(2)**

(2) The local authority shall endeavour to reach agreement with the operator and the emergency services as to how the off-site emergency plan is to be tested.

Guidance

299 The local authority must attempt to reach agreement with the operator and emergency services on the testing of the off-site emergency plan, to comply with the specific requirements of regulation 11(1). They will need to agree the overall objectives of the testing and the best way of meeting those objectives. This may take account of other tests being carried out at the establishment or in the vicinity. The suitable scenario or scenarios will have to be developed from the safety report,

11(2)

Guidance

11(2)

and the type and nature of the test exercise agreed. It will be necessary to identify which organisations are to participate in the emergency plan test and for each of these organisations to determine their own objectives, which should be consistent with the overall objectives of the exercise. If the local authority cannot reach agreement with the operator and the emergency services, regulation 11(1) still requires the local authority to test the off-site emergency plan at a suitable interval not exceeding three years.

Regulation

12

Regulation 12 Implementing emergency plans

A person who has prepared an emergency plan pursuant to a duty imposed on him by these Regulations shall take reasonable steps to put it into effect without delay when -

- (a) *a major accident occurs; or*
- (b) *an uncontrolled event occurs which could reasonably be expected to lead to a major accident.*

Guidance

12

300 The duty to implement the on-site and off-site emergency plans lies with the operator and the local authority, not on actual individuals who draw up the plans. The operator or the local authority will have discharged this duty when there are systems in place to ensure there are no unreasonable delays between the discovery of a major accident, or an incident that may lead to a major accident, and activation of the emergency plans. There should be a clear and logical decision-making system in place to ensure that, as soon as a relevant event has occurred (not necessarily a single alarm on an installation), the appropriate plan will be initiated immediately. This should include arrangements for the operator to warn the emergency services of an incident which may escalate into a major accident. These arrangements should be described in the plans.

301 The plans must specify the name(s) or position(s) of the people authorised to initiate them. The on-site plan should also specify who is responsible for sounding any alarms in the event of a major accident. This may be someone on site but, under some circumstances, for example on an establishment not attended around the clock, the first member of the external fire service to arrive may be more suitable.

Regulation

13

Regulation 13 Charge for preparation, review and testing of off-site emergency plan

(1) *A local authority may charge the operator a fee for performing its functions under regulations 10 and 11.*

(2) *The fee shall not exceed the sum of the costs reasonably incurred by the local authority in performing the functions referred to in paragraph (1) in relation to the establishment concerned, including (but without prejudice to the generality of the foregoing provision of this paragraph) any costs reasonably incurred by the local authority in arranging for the emergency services to participate in the testing of the off-site emergency plan.*

(3) *When requiring payment the local authority shall send or give to the operator a detailed statement of the work done and costs incurred including the dates of any visits to the establishment and the period to which the statement relates; and the fee, which shall be recoverable only as a civil debt, shall become payable one month after the statement has been sent or given.*

Guidance

302 The local authority may charge the operator for its costs in preparing, reviewing, revising and testing the off-site emergency plan plus any costs incurred by the emergency services in testing the off-site plan (which includes on-site mitigatory action). The operator cannot be charged for the emergency services' involvement in the preparation and review of the plan.

303 The charges can only cover costs that have been reasonably incurred. This may therefore include costs incurred from charges levied by other bodies on the local authority in carrying out work or supplying services necessary to meet the requirements of regulations 10 and 11. Where the work is carried out by local authority staff, the charge should be based on the time spent by officers of the appropriate grades, including the average costs of their employment overheads.

304 An authority may decide to contract out some of the work to another organisation, in which case the authority may recover the costs of the contract from the operator but these would still have to be reasonable.

305 The economies of scale permitted in the regime for testing off-site emergency plans should reduce the burden on all operators whose plans are under examination. For example, if a live exercise is carried out on one establishment to test the off-site emergency plan of three establishments, the operators of all three establishments should contribute as appropriate to cover the charge made by the local authority. The two establishments where the test is not carried out may have to carry out additional exercises to address site-specific aspects of their off-site emergency plans. They will have to cover any charges associated with these site-specific exercises. The additional expense of carrying out an exercise of a domino event should be distributed appropriately among the operators who will benefit from the findings of the exercise.

306 Before testing is carried out, agreement should be reached between operators, local authorities and emergency services on the scale and nature of testing, and a reasonably accurate estimate of the cost of the proposed testing schedule should be made.

307 The charges that local authorities make for testing off-site emergency plans, including the costs incurred by emergency services, should only cover costs of testing to make sure that emergency plans are accurate, complete and practical. If the test is made broader than this for other reasons, such as to provide training opportunities, then charges should not be extended to cover the additional costs.

308 In presenting a charge to an operator the local authority should provide an itemised, detailed statement of work done and costs incurred. The system for recording the work done by the local authority to enable costs to be recovered should be agreed with the operator before starting the work. The system should be transparent and should not overburden local authority staff. Any dispute arising over the charge has to be decided in the civil courts.

PART 5: PROVISION OF INFORMATION BY OPERATOR

Regulation

Regulation 14 Provision of information to the public

(1) *The operator of an establishment shall -*

(a) *ensure that -*

- (i) *every person who is likely to be in an area referred to in paragraph (2); and*
- (ii) *every school, hospital or other establishment serving the public which is situated in such area,*

is supplied regularly and in the most appropriate form, without their having to request it, with information on safety measures at the establishment and on the requisite behaviour in the event of a major accident at the establishment; and

(b) *make that information permanently available to the public.*

(2) *An area referred to in paragraph (1) is an area notified to the operator by the competent authority as being an area in which, in the opinion of the competent authority, persons are liable to be affected by a major accident occurring at the establishment.*

(3) *The information referred to in paragraph (1) shall contain at least the information specified in Schedule 6.*

14(1)-(3)

Guidance

309 People and establishments liable to be affected by a major accident at an establishment must be given specified information about the establishment, the major accident hazards and the safety measures that are in place. The competent authority determines the area around that establishment to which this duty applies but it is the operator who has to provide the information.

310 The area which the competent authority determines is known as the public information zone (PIZ). It determines the PIZ by taking account of both the likelihood and effects of possible major accidents at the establishment. It is set on the basis that people outside it are not at significant immediate risk from major accidents, although they could be if the accident escalates. The PIZ does not cover areas where a major accident might cause only environmental damage. The need to provide information to the public about delayed or indirect effects of major accidents, crop contamination for example, should be addressed in off-site emergency plans.

311 Operators have to be proactive in providing this information, ie they must provide the information without waiting for the people involved to ask for it. They must consider everyone who could be in the PIZ when a major accident occurs. This will include people passing through the area, for example people in vehicles and people who are visiting other premises within the PIZ such as shops and leisure centres. The duty extends to premises liable to be affected by a major accident so that those in charge of them can take the necessary action in respect of their employees and visitors in the event of a major accident.

312 Anyone whose presence in the PIZ can be predicted, such as residents or workers at other premises, can be sent the information individually by post or by other means. Those whose presence cannot be anticipated, for example shoppers

14(1)-(3)

Guidance

or people attending leisure centres, will need to be targeted in other ways and operators should discuss these with the competent authority and local authority.

313 The information which must be provided is detailed in Schedule 6 but this is the minimum information and operators are free to provide more if they wish. The extent and degree of detail of information supplied will vary according to the circumstances of each case. It should be written in straightforward and simple terms, avoiding the use of complicated technical expressions. A clear explanation should be given for all technical terms where their use is considered necessary. The information should be readily understood by lay readers.

314 Some information will be vital in an accident, so operators should make every effort to hold the readers' interest and help them remember the advice, for example by highlighting key items and using illustrations. It is important to get this message across to children as well as adults.

315 Operators may need to translate the information into other languages. The local authority should be able to give advice about this.

316 The way in which the information should be provided is not specified but it could include a durable card giving an illustrated summary of safety instructions. The public should be advised to keep this readily available in the event of an emergency. It could also be kept displayed alongside other emergency instructions in workplaces or places to which the public has access.

317 The information must be made available to the wider public but this duty extends beyond merely responding to requests for information. It is for operators to decide the best way of doing this but possible options include displaying it at the major hazard establishment(s) or, subject to agreement, in public libraries or town halls. It should be available in a reasonable form and at reasonable times. The information is required to be permanently available to the public but this is not the same as continuously available. Information posted outside the establishment would be both permanently and continuously available but it could be made available at certain times, for example normal office hours. Permanently means that the information never becomes unavailable. Operators and local authorities are encouraged to publicise its availability.

14(1)-(3)

Regulation

(4) In preparing the information required to be supplied in accordance with paragraph (1), the operator shall consult the local authority in whose area the establishment is situated and such other persons who appear to him to be appropriate, but the operator shall remain responsible for the accuracy, completeness and form of the information so supplied.

14(4)

Guidance

318 Operators must consult the local authority when preparing information for the public. The value of this practice has been well demonstrated, and it should ensure that best use is made of local knowledge and expertise in communicating with the public. It would normally be appropriate to consult other bodies such as neighbouring local authorities (if the establishment is near an authority boundary), utility companies, the emergency services and the health authority(ies)/Scottish health board(s).

319 In places where different operators have several establishments located close together, this consultation will enable the local authority to perform a co-ordinating role.

14(4)

Guidance
14(4)

320 Operators have the final say on the content and form of the information to be provided.

Regulation

14(5)

(5) Without prejudice to his duty under paragraph (1), the operator shall endeavour to enter into an agreement with the local authority in whose area the establishment is situated for that local authority to disseminate the information required to be supplied in accordance with that paragraph to the persons mentioned in it.

Guidance

14(5)

321 Operators should try to reach agreement with their local authority, as defined in regulation 2, to distribute the public information within the PIZ. The consultation required by regulation 14(4) should prepare the way for such an agreement. The agreement should be formalised, and should cover everything relevant to the distribution of the information. This includes the area and method of distribution, including any special arrangements for certain premises such as workplaces, multi-occupied dwellings or places used by the public such as shops and hotels and the timing of the distribution. The question of the costs which will be incurred by the local authority in disseminating the information should also be addressed, particularly where the local authority wishes these to be borne by, or recoverable from, the operator. If agreement cannot be reached, the operator will have to disseminate the information.

322 The distribution should include everyone outside the establishment and within the PIZ. This may require supplying some locations such as workplaces and multi-occupied dwellings with multiple sets of information for those in control to pass on.

Regulation

14(6)

(6) The operator shall review and where necessary revise the information referred to in paragraph (1) -

- (a) at intervals not exceeding 3 years; or*
- (b) in the event of a modification referred to in regulations 5(4) or 8(4).*

Guidance

14(6)

323 The information provided to the public must be reviewed every three years or immediately following a modification to the MAPP or safety report and, where necessary, updated. The review will not necessarily mean there will be a change in the information; in some cases no changes will be necessary.

324 Updating may be necessary to reflect any changes which have taken place in the establishment, the off-site emergency arrangements, or technical knowledge.

Regulation

14(7)

(7) The operator shall ensure that the information referred to in paragraph (1) is supplied in accordance with that paragraph within a reasonable period of time after the off-site emergency plan has been prepared for the establishment and that the information is so supplied again -

- (a) at intervals not exceeding 5 years; or*
- (b) if it is revised pursuant to paragraph (6).*

Guidance

14(7)

325 People within the PIZ must be given the required information within a reasonable period of time after the off-site emergency plan has been prepared. It must also be available to the general public within the same period. Six months would normally be appropriate.

326 The public information must be re-distributed whenever it is revised or after five years if there has been no update. This will cater for changes in population and ensure that people who have moved into the area are properly informed. It will also remind people who have previously been informed.

Guidance

14(7)

327 Re-distribution may also be appropriate before the five-year limit. Operators may wish to carry out a representative survey of the people in the affected area to see how well people have absorbed the information they were given, to assess the need for a further distribution. Local authorities may also be able to give advice about this because of their local knowledge. Their broader experience in communicating with the public may also help operators to decide what to do.

Regulation

15(1)

Regulation 15 Provision of information to the competent authority

(1) Every operator of an establishment shall, when requested to do so by the competent authority provide sufficient information to the authority to demonstrate that he has taken all measures necessary to comply with these Regulations, and the information shall be so provided within such period as the competent authority specifies in the request.

Guidance

15(1)

328 This regulation is a development of the general duty under regulation 4. It complements the duty on employers and the self-employed under MHSWR to assess the risks to workers and others who may be affected by their activities. That risk assessment, together with appropriate preventive and protective measures taken, will usually provide sufficient evidence to demonstrate safe operation in terms of people's health and safety. It may, however, need to be supported by the health and safety policy, safety audit reports, operating instructions, training manuals etc. Documentation prepared to support applications for authorisation under integrated pollution control and waste legislation and regular monitoring reports will also be relevant. The competent authority may ask for additional documentation or evidence, for example training records which have been referred to in the MAPP, to decide whether all measures necessary have been taken.

329 It is not usually necessary to prepare a special document to meet the requirements of this regulation but operators should be able to draw together the relevant documents to provide the necessary evidence if requested.

Regulation

15(2)

(2) Without prejudice to the generality of paragraph (1), the operator shall when requested to do so by the competent authority, provide the authority with any information necessary to enable the authority -

- (a) fully to assess the possibility of a major accident and to determine the scope of possible increased probability or aggravation of a major accident;*
- (b) to take substances into account which, due to their physical form, particular conditions or location, may require additional consideration; or*

Guidance

15(2)

330 If the competent authority considers the operator has not adequately demonstrated that all measures necessary have been taken, it may ask for additional information. This must be provided.

Regulation

15(2)

- (c) to perform its functions of obtaining or collecting information under regulation 19(4);*

and the information shall be so provided within such period as the competent authority specifies in the request.

Guidance

15(2)

331 This relates to the competent authority's duty to investigate major accidents (regulation 19(4)). The operator must provide any information it needs in order to investigate the accident.

**Regulation
15(3)**

(3) *Where a major accident has occurred at an establishment the operator shall forthwith inform the competent authority of that accident.*

**Guidance
15(3)**

332 Any major accidents which meet the definition in regulation 2(1) must be reported, by the operator, to the competent authority.

Regulation

(4) *Where the operator has notified a major accident to the Executive in accordance with the requirements of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995^(a), he shall be deemed to have complied with the requirement to inform the competent authority of that accident under paragraph (3).*

15(4)

(a) SI 1995/3163.

Guidance

333 If the operator notifies a major accident under the system set up for the purposes of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 it is not necessary to make a separate notification under these Regulations.

15(4)

Regulation

15(5)

(5) *Anything required to be sent by an operator of an establishment to the competent authority pursuant to these Regulations shall be sent to the authority at an office of the Executive.*

Guidance

15(5)

334 Notifications, safety reports, major accident reports etc should be sent to the local HSE office where the report will be copied and sent to the Agency.

Regulation

16(1)

Regulation 16 Provision of information to other establishments

(1) *The competent authority shall, using the information received from operators in notifications sent pursuant to regulation 6 and in safety reports, designate groups of establishments where the likelihood or consequences of a major accident may be increased because of the location and proximity of establishments in the group and the dangerous substances present there.*

Guidance

16(1)

335 In some circumstances a major accident at one COMAH establishment might be triggered by an incident at another COMAH establishment (the so-called domino effect). The initiating event need not necessarily be a major accident itself but must be at a COMAH establishment, either top-tier or lower-tier, and involve a defined dangerous substance. The duty to identify establishments with the potential to affect neighbouring establishments in this way lies with the competent authority. Criteria for making this decision are detailed in the manual described in paragraph 166.

336 This regulation cannot bring a non-COMAH site into the scope of the Regulations or make a lower-tier establishment subject to the top-tier duties.

Regulation

16(2)

(2) *The competent authority shall notify each operator of an establishment in a group designated pursuant to paragraph (1) of the names and addresses of other establishments within the same group.*

Guidance

16(2)

337 Details of these notifications will be placed on the public register. See Schedule 8.

Regulation

16(3)

(3) *The operator of any establishment in a group designated pursuant to paragraph (1) shall -*

- (a) *pass appropriate information about the establishment to other establishments in the group to enable them to take account of the nature and extent of the overall hazard of a major accident in their major accident prevention policy documents, safety reports and on-site emergency plans; and*

Guidance

16(3)

338 Where two or more establishments have been designated as domino establishments, the operators must take account of the overall hazard, ie the combined consequences of a major accident at one establishment being triggered by an incident at the other. In order to do this, the operators need information about the other establishments involved and this information must be exchanged.

339 The Regulations do not specify the type of information, merely stating that it must be appropriate. Operators will need to know the kinds of activities being carried out at the other establishment(s) and the ways in which these could trigger a major accident at their own establishment. Details such as substances and properties will also be required.

340 Similarly, the way in which the information should be exchanged is not specified. Discussions will undoubtedly be necessary but verbal exchange of information does not provide a permanent record, so some form of documentation is essential.

Regulation
16(3)

16(3)

- (b) *co-operate with those other establishments to enable them to carry out any obligations they have under regulations 10(3),(5), and 14(1).*

Guidance

341 All operators of top-tier establishments must provide the public with information about their activities in order to fulfil their duties under regulation 14. Those operators whose establishments are designated as domino sites must ensure that the information they give points out this designation. They must also co-operate with each other to ensure that their public information details any implications this has for safety and the precautions which should be taken in the event of a major accident.

342 Similarly, the operators must ensure that they give the local authority the information needed to take account of the designation in their off-site emergency plans.

PART 6: FUNCTIONS OF COMPETENT AUTHORITY

Regulation

Regulation 17 Functions of competent authority in relation to the safety report

(1) *The competent authority shall within a reasonable period of time of receiving a safety report -*

- (a) *communicate the conclusions of its examination of the report to the operator of the establishment concerned; or*
- (b) *prohibit the operation or bringing into operation of the establishment or installation concerned or any part thereof in accordance with regulation 18.*

(2) *Where, pursuant to regulation 7(10), a report has been sent to the competent authority in parts, paragraph 17(1)(a) shall apply -*

- (a) *to each part of the report, as if the reference to communicating the conclusions of the examination were a reference to communicating provisional conclusions;*
- (b) *to all parts of the report, as if the reference to communicating the conclusions of the examination within a reasonable period of time of receiving a safety report were a reference to communicating, within a reasonable period of time of receiving the last part, the examination of the parts as a whole having regard, in particular, to the inter-relationship between different industrial activities in the establishment.*

17

Guidance

343 The competent authority must assess each safety report and communicate the conclusions of its assessment to the operator within a reasonable time, unless it prohibits operation of the establishment in accordance with regulation 18. The time needed will depend on the size and complexity of the establishment and will be agreed with the operator.

The assessment process

344 The assessment process will be tightly managed and structured. The competent authority will appoint an assessment team for each safety report, with an assessment manager to co-ordinate the assessment and liaise directly with the operator. HSE and the Agencies have developed standards which address two aspects of assessment:

- (a) the criteria to be used in judging whether a report meets all legal requirements; and
- (b) the procedures to be used internally within the competent authority for completing the assessment.

345 Both elements are contained in a manual produced for use by the competent authority (Safety Report Assessment Manual), although key elements were developed in consultation with stakeholders. The manual can be seen on the COMAH pages of the HSE website (see 'Further reading'). It explains the methods the competent authority will use to assess safety reports and the arrangements it will use to manage the assessment process so that it is completed on time to the right quality. The competent authority has also prepared guidance for operators on preparing a safety report.⁸

17

Guidance

Assessment criteria

346 The first step in developing criteria was the establishment of assessment principles. These provided a framework within which detailed criteria and administrative arrangements could be developed. The principles are the aims and objectives of the assessment process. The criteria provide guidance for assessors on what to look for in safety reports. The administrative arrangements set out the procedures to ensure that the process is delivered on time to the right quality.

347 At its most general, assessment is a structured process by which the competent authority examines the adequacy of safety reports against the purposes set out in Part 1, and the contents set out in Part 2, of Schedule 4 of the Regulations. It helps the competent authority decide whether or not there is a serious deficiency in the measures for prevention and mitigation which warrants prohibition as required by regulation 18. The criteria will also be used:

- (a) to identify information in the safety reports which should be routinely assessed; and
- (b) to identify installations, parts of installations, plans or features described in the safety report which should be scrutinised at subsequent site inspections.

348 The assessment criteria are firmly rooted in the requirements of the Regulations. Detailed criteria have been drawn up which relate to each of the elements listed in Part 2 of Schedule 4. The criteria set out how the adequacy of the information about the MAPP and SMS will be determined, what will constitute an adequate description of the establishment and its environment, what will constitute an adequate description of major accident scenarios, what is expected in terms of preventive measures and so on. The criteria are detailed in the manual described in paragraph 345.

Sampling

349 The assessment and conclusions may be based on selected sections of the report only. Sampling techniques are well documented in the criteria and principles in the assessment manual (paragraph 345), and based on selecting those areas of the establishment and activities that present the highest hazard of a major accident to people and the environment. When selecting risk control systems, factors other than the safety report itself might be considered, such as previous accidents on site or elsewhere and previous inspection or audit reports. A careful record will be kept of activities selected, and this information will be included in the written conclusions.

Communicating conclusions

350 The competent authority's written conclusions will often include comments on areas which could be improved and will lead to discussions between it and the operator. When reports are submitted in parts, it will provide its conclusions on each part. After it receives the final part it will also comment on the report as a whole.

351 When the competent authority sends its conclusions about the report to the operator, the receipt of those conclusions does not imply that it is accepting that the performance standards detailed in the report are being implemented. However, where assessors have prior knowledge of the performance standards, this will be used to test whether the report gives a reasonable picture of conditions at the establishment. Assessors will not accept a report they know is factually incorrect, but will request further information.

Guidance

Serious deficiency

352 The competent authority will not prohibit any activities solely on the basis of documentary evidence in the safety report. Where examination of the safety report reveals a possible serious deficiency, the operator will be contacted and the situation assessed, usually by a site visit. If the site visit confirms a serious deficiency in the measures to prevent or mitigate major accidents, the relevant activities will be prohibited under regulation 18.

353 Prohibition will normally be discussed by the assessment team and agreed by the competent authority's line management.

17

Regulation

Regulation 18 Prohibition of use

(1) The competent authority shall prohibit the operation or bringing into operation of any establishment or installation or any part thereof where the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient.

18(1)

Guidance

354 There are two main aspects to this regulation:

- (a) the stage in the process at which operation will be prohibited; and
- (b) the criteria to be used when deciding whether measures proposed or taken are seriously deficient.

355 The competent authority cannot prohibit construction, but may indicate that, if the establishment is built as proposed, the operator will not be permitted to bring it into operation. See the guidance on regulation 7(4).

356 The competent authority's inspectors will also prohibit the continued operation of an establishment if they identify a serious deficiency in any other way, for example during an inspection or an accident investigation.

357 The arrangements, controls or systems in place must be seriously deficient as a whole for a COMAH prohibition notice to be issued. Absence or deficiency in a single measure may not constitute a serious deficiency since most major hazard protection systems have several lines of defence, which must all be breached for an accident to occur. Similarly, although a number of individual deficiencies in a particular measure is a strong indicator of concern, it is not in itself the test for prohibition. It is not the deficiency of any individual measure that leads to prohibition, but an assessment that the overall measures necessary for preventing or mitigating major accidents are seriously deficient.

358 Some examples of situations which might indicate that there is a serious deficiency are:

- (a) a pressure system not designed to a recognised national or international standard and no action taken to ensure initial integrity, for example by a competent person examining it and certifying that it is fit for the purpose; and
- (b) a number of elements in the management arrangements or risk control systems which in total are not seriously deficient, but when evaluated together with technical and predictive shortcomings, render the measures described in the report (and confirmed by a site visit) seriously deficient.

18(1)

Regulation

18(2)

(2) *The competent authority may prohibit the operation or bringing into operation of any establishment or installation or any part thereof if the operator has failed to submit any notification, safety report or other information required by or under these Regulations within the time so required.*

Guidance

18(2)

359 The competent authority has the power to prohibit the operation or bringing into operation of an establishment if the operator has failed to provide the information required by the Regulations within the specified time limits. It would always hold discussions with operators before taking this kind of prohibition action, which would only be taken as a last resort. Short extensions to specified deadlines could be agreed in some circumstances. Clearly the quality and completeness of the information provided would also be a significant factor in any decision.

360 The information this regulation refers to includes:

- (a) notifications (regulation 6);
- (b) safety reports, including requests for further information (regulation 7);
- (c) notification of modifications (regulation 8);
- (d) supply of information to local authorities for preparation of the off-site emergency plans (regulation 10);
- (e) information provided to the public (regulation 14);
- (f) additional information requested by the competent authority (regulation 15);
- (g) information provided after an accident (regulation 15);
- (h) information exchanged between establishments and with local authorities and the public subject to designation under regulation 16.

Regulation

18(3)-(4)

(3) *Where the competent authority proposes to prohibit an operation or the bringing into operation of an establishment or installation or any part thereof pursuant to this regulation, it shall serve on the operator a notice giving reasons for the prohibition and specifying the date when it is to take effect, and any such notice may be withdrawn in writing by the competent authority.*

(4) *A notice served pursuant to paragraph (3) may specify measures which, if taken, would cause the competent authority to withdraw the notice.*

Guidance
18(3)-(4)

361 See regulation 17 on arrangements when a serious deficiency is identified during assessment of a safety report.

Regulation

18(5)-(6)

(5) *Where a notice has been served on an operator in accordance with paragraph (3) the operator shall comply with it (including any such notice as modified on appeal).*

(6) *Section 24 of the 1974 Act (appeal against improvement or prohibition notice) and, in England and Wales, regulation 8(4)(b) of, and Schedule 4 to, the Employment Tribunals (Constitution and Rules of Procedure) Regulations 1993^(a) and, in Scotland, regulation 8(4)^(b) of, and Schedule 4 to the Employment Tribunals (Constitution and Rules of Procedure) (Scotland) Regulations 1993 (b) shall apply in relation to a notice served under this regulation as they apply in relation to a prohibition notice served under section 22 of that Act.*

(a) SI 1993/2687, amended by SI 1994/538 and 1996/1758. The title of these Regulations, formerly the "Industrial Tribunals (Constitution and Rules of Procedure) Regulations 1993" was amended by operation of section 1 of the Employment Rights (Dispute Resolution) Act 1998 c.8.

(b) SI 1993/2688, amended by SI 1994/538 and 1996/1758. The title of these Regulations, formerly the "Industrial Tribunals (Constitution and Rules of Procedure) (Scotland) Regulations 1993" was amended by operation of section 1 of the Employment Rights (Dispute Resolution) Act 1998 c.8.

Guidance
18(5)-(6)

362 The usual HSW Act notice appeals procedure will apply. Appeal will be to an industrial tribunal and the prohibition will remain in force until the outcome of the appeal.

Regulation

Regulation 19 Inspections and investigations

(1) *The competent authority shall organise an adequate system of inspections of establishments or other measures of control appropriate to the type of establishment concerned.*

(2) *The inspections or control measures referred to in paragraph (1) shall not be dependent upon the receipt of any report submitted by the operator and they shall 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 -*

- (a) *that the operator can demonstrate that he has taken appropriate measures to prevent major accidents;*
- (b) *that the operator can demonstrate that he has provided appropriate means for limiting the consequences of major accidents both inside and outside the establishment;*
- (c) *that the information contained in any report sent to the competent authority by the operator of the establishment adequately reflects the conditions in the establishment; and*
- (d) *that information has been supplied to the public pursuant to regulation 14.*

(3) *A system of inspection referred to in paragraph (1) shall meet the following conditions -*

- (a) *there shall be a programme of inspections for all establishments;*
- (b) *unless such a programme is based upon a systematic appraisal of major accident hazards of the particular establishment concerned, the programme shall, in the case of establishments to which regulations 7 to 14 apply, entail at least one on-site inspection made on behalf of the competent authority every 12 months;*
- (c) *following each inspection, a report shall be prepared by the competent authority; and*
- (d) *where necessary, matters shall be pursued with the operator within a reasonable period following the inspection.*

19(1)-(3)

Guidance

363 One of the reasons for replacing the original Seveso Directive was to improve the consistency of implementation of the controls across Member States. This regulation, which implements Article 18 of the Seveso II Directive, lays down some essential elements of systems for inspection and follow-up action after major accidents. The European Commission has drawn up some guidance on inspection systems (see 'Further reading'). HSE, the EA and the SEPA already operate to these standards.

19(1)-(3)

Regulation

(4) *Where the competent authority or the Executive has been informed of a major accident at an establishment the competent authority shall -*

- (a) *obtain from the operator of the establishment -*
 - (i) *information as respects the circumstances of the accident, the dangerous substances involved, the data available for assessing the effects of the accident on persons and the environment, the*

19(4)

Regulation

19(4)

- emergency measures taken and the steps envisaged to alleviate the medium and long-term effects of the accident and to prevent any recurrence of it, and*
- (ii) *such other information in the operator's possession as will enable the competent authority to notify the European Commission pursuant to regulation 21(1);*

Guidance

19(4)

364 When a major accident is reported by an operator, as required by regulation 15(3), the competent authority will collect the information needed to report the accident to the European Commission, as required by regulation 21(1). The information is specified in regulation 19(4)(a)(i) and in Schedule 7, Part 2. The duty on the operator to provide the information is created by regulation 15(2)(c).

Regulation

19(4)

- (b) *ensure that any urgent, medium and long-term measures which may prove necessary are taken;*

Guidance

19(4)

365 The measures could be mitigatory measures connected with the current accident or measures to prevent another one.

Regulation

19(4)

- (c) *make a full analysis of the technical, organisational and managerial aspects of the major accident and collect, by inspection, investigation or other appropriate means, the information necessary for that purpose;*

Guidance

19(4)

366 This requires the competent authority to conduct a thorough investigation into the accident. Not only does its cause need to be determined but also the effectiveness of the emergency measures.

Regulation

19(4)

- (d) *take appropriate action to ensure that the operator takes any necessary remedial measures; and*

Guidance

19(4)

367 The competent authority needs to take appropriate action to ensure that operators have taken any necessary remedial measures after an accident. This is discussed in the guidance to regulations 4 and 10. These measures will need to be proportionate to the harm caused by the accident and the risk of continuing harm to people and the environment.

Regulation 19(4)

- (e) *make recommendations on future preventive measures.*

Guidance

19(4)

368 The recommendations for future preventative measures will come out of the investigation and may not be drawn up for some time after the accident.

Regulation

20(1)

Regulation 20 Enforcement

- (1) *Sections -*
- (a) *16 to 21 (approval of codes of practice and enforcement);*
- (b) *23 (provisions supplementary to sections 21 and 22) and 24 (appeal against improvement or prohibition notice), so far as they relate to an improvement notice;*
- (c) *26 (power to indemnify inspectors); and*
- (d) *33 to 42 (provisions as to offences),*

of the 1974 Act, shall, subject to paragraphs (2) and (3), and to the extent they would not otherwise do so, apply to these Regulations as if they were health and safety regulations for the purposes of that Act, and any function of the Health and Safety Commission under any other provision of the 1974 Act which is exercisable

Regulation

20(1)

in relation to any function of the Executive under or in respect of health and safety regulations (including their enforcement) shall be exercisable as if these Regulations were, to the extent they would not otherwise be so, health and safety regulations for the purposes of that Act.

**Guidance
20(1)**

369 The whole of the COMAH Regulations are treated as health and safety regulations under the HSW Act.

Regulation

20(2)

(2) A failure to discharge a duty placed on the competent authority by these Regulations shall not be an offence, and section 33(1)(c) of the 1974 Act shall have effect accordingly.

**Guidance
20(2)**

370 If the competent authority fails to discharge a duty under these Regulations, it is not an offence but the normal remedy of judicial review applies.

Regulation

20(3)

(3) Section 18(1) of the 1974 Act (duty to make adequate arrangements for enforcement) shall apply in relation to the enforcement of these Regulations as if the reference to the Executive included a reference to the Agency, but nothing in this paragraph shall have the effect of making the Agency an enforcing authority for the purposes of the 1974 Act.

**Guidance
20(3)**

371 This makes HSE and the Agency jointly responsible for making adequate arrangements for enforcement of the Regulations but it does not make the Agency an enforcing authority for the HSW Act.

Regulation

20(4)

(4) Without prejudice to the provisions of the 1974 Act referred to in paragraph (1), section 108(1) of the Environment Act 1995^(a) shall have effect in relation to a person authorised by the Agency as if the reference in that section to a pollution control enactment included a reference to these Regulations and as if the reference to a pollution control function included a reference to any function conferred or imposed on the Agency by or under these Regulations.

(a) 1995 c.25.

**Guidance
20(4)**

372 Inspectors appointed by the Agencies can use their existing powers for the purposes of enforcing these Regulations (for example for entering establishments).

Regulation

20(5)

(5) Without prejudice to the functions of an inspector appointed under section 19 of the 1974 Act, a person referred to in paragraph (4) may, notwithstanding that he is not an inspector so appointed, serve an improvement notice under section 21 of that Act in respect of a contravention of these Regulations, and the reference to an inspector in section 23(4) of that Act shall have effect accordingly.

Guidance

20(5)

373 An Agency inspector may serve an improvement notice under the HSW Act in connection with these Regulations.

374 Section 38 of the HSW Act, as amended by Schedule 22 of the Environment Act 1995, provides for an Agency inspector to institute legal proceedings for breaches of the Regulations.

Regulation

(6) Notwithstanding the Health and Safety (Enforcing Authority) Regulations 1998^(a) the Executive shall, for the purposes of the 1974 Act, be the enforcing authority for the relevant statutory provisions at an establishment to which any of these Regulations apply.

20(6)

(a) SI 1998/494.

Guidance

375 This makes HSE the enforcing authority for the HSW Act and all relevant statutory provisions, at all establishments subject to the COMAH Regulations. It is to ensure consistency and prevent over-inspection. Without this provision, some establishments might fall to the local authority under the regulations which normally determine the enforcing authority.

376 Regulation 2 makes HSE, together with EA or SEPA, the competent authority for the COMAH Regulations. Regulation 20(6) makes HSE responsible for enforcing all other health and safety legislation at establishments where COMAH applies, but does not affect the Agencies' role in enforcement of other environmental legislation.

20(6)

Regulation

Regulation 21 Provision of information by competent authority

(1) The competent authority shall notify the European Commission as soon as practicable of any major accident meeting the criteria specified in Part 1 of Schedule 7.

(2) The notification referred to in paragraph (1) shall contain the information specified in Part 2 of Schedule 7.

(3) The competent authority shall notify the European Commission of any analysis and recommendations made pursuant to regulation 19(4)(c) and (e).

(4) Schedule 8 (provision of information by competent authority) shall have effect.

(5) This regulation shall apply notwithstanding the provisions of section 28 of the 1974 Act.

21(1)-(5)

Guidance

377 The competent authority will collect details of major accidents in accordance with regulation 19(4) and report them to the European Commission, as HSE did under CIMAH. The details which it will report are given in Part 2 of Schedule 7.

378 This regulation gives effect to Schedule 8, which explains how the competent authority will make certain information, particularly safety reports, available through public registers. Schedule 8 also explains how the Environmental Information Regulations 1992 affect COMAH (see Schedule 8, section 20 and associated guidance).

379 Regulation 21(5) prevents Section 28 of the HSW Act from restricting the information that can be released under these Regulations.

21(1)-(5)

Regulation

Regulation 22 Fee payable by operator

- (1) A fee shall be payable by the operator of an establishment to the Executive for the performance by or on behalf of the competent authority of any function conferred on the authority by these Regulations (except regulations 10(2), (6) and (7)).
- (2) A fee shall be payable by the operator of an establishment to the Executive for the performance -
- (a) by or on behalf of the Executive or the Agency of any function relating to the enforcement of these Regulations conferred on the Executive or Agency by the 1974 Act or by virtue of regulation 20; and
 - (b) by an inspector or authorised person of any such function conferred on him by the Act or by virtue of that regulation.
- (3) The fee referred to in paragraphs (1) and (2) shall-
- (a) not exceed the sum of the costs reasonably incurred by the competent authority, the Executive or the Agency, as the case may be, for the performance of the functions in relation to the establishment concerned;
 - (b) be payable within 30 days from the date of the invoice that the Executive has sent or given to the operator such invoice to include a statement of the work done and the cost incurred including the period to which the statement relates.
- (4) The Executive shall pay to the Agency any such fee or part of any such fee it recovers as is attributable to work done by or on behalf of the Agency or by an authorised person in performing the functions concerned.
- (5) Any fee payable under this regulation shall be recoverable only as a civil debt.
- (6) Any fee payable under this regulation shall not include costs connected with -
- (a) in England and Wales, any criminal investigation or prosecution incurred (in either case) from the date any summons is obtained from a Magistrates' Court;
 - (b) in Scotland, criminal investigation or prosecution incurred (in either case) after such time as -
 - (i) the inspector or authorised person undertaking the investigation submits a report to the Procurator Fiscal for his decision as to whether a prosecution should be brought; or
 - (ii) the Procurator Fiscal intervenes in the investigation, whichever is the sooner;
 - (c) any appeal pursuant to section 24 of the 1974 Act incurred from the date that a notice of appeal has been received by the Secretary of Tribunals pursuant to, in England and Wales, the Employment Tribunals (Constitution and Rules of Procedure) Regulations 1993^(a) and, in Scotland, the Employment Tribunals (Constitution and Rules of Procedure)(Scotland) Regulations 1993.^(b)

22(1)-(7)

(7) In this regulation "inspector" means a person appointed by the Executive

Regulation

under section 19 of the 1974 Act and “authorised person” means a person authorised by the Agency under section 108 of the Environment Act 1995.

22(1)-(7)

*(a) SI 1993/2687, amended by SI 1994/538 and 1996/1758. The title of these Regulations, formerly the “Industrial Tribunals (Constitution and Rules of Procedure) Regulations 1993” was amended by operation of section 1 of the Employment Rights (Dispute Resolution) Act 1998 c.8.
(b) SI 1993/2688, amended by SI 1994/538 and 1996/1758. The title of these Regulations, formerly the “Industrial Tribunals (Constitution and Rules of Procedure) (Scotland) Regulations 1993” was amended by operation of section 1 of the Employment Rights (Dispute Resolution) Act 1998 c.8.*

Guidance

380 This regulation gives the competent authority power to charge operators for the work it carries out under COMAH. The competent authority has produced guidance for operators on the COMAH charging scheme.¹² The guide sets out the charging arrangements that came into force on 1 April 1999, including details of chargeable activities, charge-out rates, people to be charged, the methodology used for calculating charges and illustrative examples of charges for a range of COMAH installations. The guide can be obtained from HSE or viewed on the HSE website (see ‘Further reading’).

22(1)-(7)

PART 7: AMENDMENTS, REVOCATIONS, SAVINGS AND TRANSITIONAL PROVISIONS

Regulation

Regulation 23 Amendments

(1) *The Petroleum (Consolidation) Act 1928^(a) shall be amended by the insertion, after section 25, of the following section -*

“25A. The provisions of this Act shall not apply in respect of -

- (a) any establishment to which the Control of Major Accident Hazards Regulations 1999 [S.I. 1999/743] apply by virtue of regulation 3 of those Regulations; and*
- (b) any site in respect of which notification of an activity is required pursuant to regulation 3 of the Notification of Installations Handling Hazardous Substances Regulations 1982 [S.I. 1982/1357].”.*

(2) *The Petroleum-Spirit (Motor Vehicles etc) Regulations 1929^(b) shall be amended by the insertion, after regulation 15, of the following regulation -*

Disapplication

15A. The provisions of these Regulations shall not apply in respect of -

- (a) any establishment to which the Control of Major Accident Hazards Regulations 1999 [S.I. 1999/743] apply by virtue of regulation 3 of those Regulations; and*
- (b) any site in respect of which notification of an activity is required pursuant to regulation 3 of the Notification of Installations Handling Hazardous Substances Regulations 1982 [S.I. 1982/1357].”.*

(3) *The Petroleum-Spirit (Plastic Containers) Regulations 1982^(c) shall be amended by the insertion, after regulation 7, of the following regulation -*

Disapplication

“8. The provisions of these Regulations shall not apply in respect of -

- (a) any establishment to which the Control of Major Accident Hazards Regulations 1999 [S.I. 1999/743] apply by virtue of regulation 3 of those Regulations; and*
- (b) any site in respect of which notification of an activity is required pursuant to regulation 3 of the Notification of Installations Handling Hazardous Substances Regulations 1982 [S.I. 1982/1357].”.*

(a) 1928 c.32.

(b) SI 1929/952; amended by SI 1979/427 and SI 1982/630.

(c) SI 1982/630.

23(1)-(3)

Guidance

23(1)-(3)

381 This regulation disapplies the Petroleum (Consolidation) Act 1928 (PCA) from establishments covered by COMAH and the Notification of Installations Handling Hazardous Substances Regulations 1982 (NIHHS) because other legislation governing these sites is sufficient to ensure safety. This legislation includes the Dangerous Substances and Explosive Atmospheres Regulations 2002, supported

Guidance

23(1)-(3)

by the general provisions of health and safety legislation and extensive guidance on storing flammable substances. The disapplication also includes substances which have been classified as petroleum within the meaning of PCA, for example calcium carbide and liquid methane.

382 Related regulations concerning the keeping of petroleum in motor vehicles and petroleum in plastic containers are also disapplied from COMAH and NIHHS sites.

Regulation

Regulation 24 Revocation and savings

(1) *The 1984 Regulations, the Control of Industrial Major Accident Hazards (Amendment) Regulations 1988^(a), the Control of Industrial Major Accident Hazards (Amendment) Regulations 1990^(b), and the Control of Industrial Major Accident Hazards (Amendment) Regulations 1994^(c), are hereby revoked.*

(2) *Regulations 8(1) and (3), 9, 13 and 14 of the 1984 Regulations shall apply to a CIMAH report while the industrial activity to which it relates continues and until the time referred to in paragraph (4), as if those Regulations had not been revoked.*

(3) *Where a CIMAH report relates to more than one industrial activity, the references in paragraph (2) to the CIMAH report are references to each part which relates to an industrial activity.*

(4) *The time referred to in paragraph (2) is when a safety report has been sent to the competent authority relating to the industrial activity concerned.*

(5) *An on-site emergency plan prepared pursuant to regulation 10 of the 1984 Regulations and an off-site emergency plan prepared pursuant to regulation 11 of those Regulations shall, while the industrial activity to which it relates continues and until the time referred to in paragraph (6), be kept up to date in accordance with the 1984 Regulations as if they had not been revoked; and during that period regulations 13 to 15 of the 1984 Regulations shall apply in relation to that emergency plan as if those regulations had not been revoked.*

(6) *The time referred to in paragraph (5) is when an on-site emergency plan or off-site emergency plan, as the case may be, has been prepared pursuant to regulations 9 or 10 of these Regulations relating to the establishment at which the industrial activity is carried on.*

(7) *Information supplied in accordance with regulation 12 of the 1984 Regulations, shall, while the industrial activity to which it relates continues and until the time referred to in paragraph (8), be updated, supplied again and made available in accordance with that regulation as if it had not been revoked.*

(a) SI 1988/1462.
(b) SI 1990/2325.
(c) SI 1994/118.

24(1)-(7)

Guidance

24(1)-(7)

383 The COMAH Regulations revoked the CIMAH Regulations but safety reports, emergency plans and information for the public, which were prepared to comply with duties under CIMAH, remained in force until replaced by new ones complying with the equivalent COMAH duties.

384 However, if, before the COMAH safety report was produced, there was a

Guidance

modification to the establishment which would have necessitated a modification to the CIMAH safety report, the operator could choose either to replace it by a COMAH report or update the CIMAH report. If the operator chose to update the CIMAH report, it still had to be replaced by a COMAH report as specified in regulation 7(10).

385 A similar argument applies in respect of CIMAH emergency plans and information to the public which need amendment after 1 April 1999.

386 HSE continues as the competent authority for the duties which remain under the CIMAH Regulations.

24(1)-(7)

Regulation

24(8)

(8) *The time referred to in paragraph (7) is when information relating to the establishment at which the industrial activity is carried on has been supplied in accordance with regulation 14(1) of these Regulations.*

387 This requires information provided to the public under CIMAH to be updated, if necessary, as if CIMAH were still in force.

Guidance

24(8)

Regulation

24(9)

(9) *Paragraphs (2) to (8) shall only apply in relation to an industrial activity at an establishment to which regulations 7 to 14 apply.*

388 Some sites were top-tier CIMAH and became top-tier COMAH on 1 April 1999 but, because of later changes in thresholds or inventories, became lower-tier, or dropped out of the regime altogether. Operators of such sites did not have to maintain their CIMAH safety reports, public information and emergency plans. However, regulation 6(4) required them to notify the change to the competent authority. See paragraph 164 for guidance on such sites returning to top-tier at a later date.

Guidance

24(9)

Regulation

25

Regulation 25 Transitional provisions

Where a report or off-site emergency plan referred to in regulation 24 is required to be kept up to date by virtue of that regulation, the references in paragraph 3 of Schedule 6 to the notification referred to in regulation 6 and to the safety report shall be construed as a reference to a report referred to in regulation 24, and the reference in paragraph 10 of that Schedule to the off-site emergency plan shall be construed as a reference to the off-site emergency plan so referred to.

Guidance

25

389 Until replaced by their COMAH equivalents, safety reports, on-site and off-site emergency plans for top-tier COMAH establishments that were previously top-tier CIMAH establishments must be kept up to date after the CIMAH Regulations have been revoked, as if they were still in force. This regulation ensures that references to these documents are legally correct.

Schedule

SCHEDULE 1 DANGEROUS SUBSTANCES TO WHICH THE REGULATIONS APPLY

(This Schedule sets out the provisions of Annex 1 of the Directive, with modifications)

Regulations 2(1) and (8) and 3(1)

Part 1: Introduction

1 *This Schedule applies to the presence of dangerous substances at any establishment and determines the application of the relevant regulations in accordance with regulation 3(1).*

2 *Mixtures and preparations shall be treated in the same way as pure substances provided they remain within the concentration limits set according to their properties under the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002^(a), unless a percentage composition or other description is specifically given.*

3 *The qualifying quantities set out in Parts 2 and 3 relate to each establishment.*

4 *The quantities to be considered for the application of the relevant regulations are the maximum quantities which are 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 site.*

5 *The rules given in Part 3, Note 4 governing the addition of dangerous substances, or categories of dangerous substances, shall apply.*

6 *For the purpose of this Schedule, 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 purpose of this Schedule, 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 101.3kPa.*

(a) SI 2002/1689

1, Part 1

Schedule

Part 2: Named substances

Where a substance or group of substances listed in this Part also falls within a category of Part 3, the qualifying quantities set out in this Part must be used.

Column 1	Column 2	Column 3
Dangerous substances	Quantity in tonnes	
Ammonium nitrate (as described in Note 1 of this Part; see also Note 8(1) and 8(2))	5,000	10,000
Ammonium nitrate (as described in Note 2 of this Part; see also Note 8)	1,250	5,000
Ammonium nitrate (as described in Note 3 of this Part; see also Note 8(2) and 8(3))	350	2,500
Ammonium nitrate (as described in Note 4 of this Part; see also Note 8)	10	50
Potassium nitrate (as described in Note 5 of this Part)	5,000	10,000
Potassium nitrate (as described in Note 6 of this Part)	1,250	5,000
Arsenic pentoxide, arsenic (V) acid and/or salts	1	2
Arsenic trioxide, arsenious (III) acid and/or salts	0.1	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	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
Liquefied extremely flammable gases (including LPG) and natural gas (whether liquefied or not)	50	200
Acetylene	5	50
Ethylene oxide	5	50
Propylene oxide	5	50

1, Part 2

Schedule	Column 1	Column 2	Column 3
	Dangerous substances	Quantity in tonnes	
	Methanol	500	5,000
	4, 4-Methylenebis (2-chloraniline) and/or salts, in powder form	0.01	0.01
	Methylisocyanate	0.15	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	0.001	0.001
	The following CARCINOGENS at concentrations above 5% by weight:		
	4-Aminobiphenyl and/or its salts, Benzotrichloride, Benzidine and/or salts, Bis(chloromethyl) ether, Chloromethyl methyl ether, 1,2-Dibromoethane, Diethyl sulphate, Dimethyl sulphate, Dimethylcarbamoil chloride, 1,2-Dibromo-3-chloropropane, 1,2-Dimethylhydrazine, Dimethylnitrosomine, Hexamethylphosphoric triamide, Hydrazine, 2-Naphthylamine and/or salts, 4-Nitrodiphenyl, and 1,3 Propanesultone	0.5	2.0
	Petroleum products:		
	(a) gasolines and naphthas;		
	(b) kerosenes (including jet fuels);		
	(c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)	2,500	25,000
	Notes		
	1 Ammonium nitrate (5,000/10,000): <i>fertilisers capable of self-sustaining decomposition</i>		
	<i>This applies to ammonium nitrate-based compound/composite fertilisers (compound or composite fertilisers containing ammonium nitrate with phosphate and/or potash) in which the nitrogen content as a result of ammonium nitrate is —</i>		
	<i>(a) between 15.75% and 24.5% by weight and either with not more</i>		

1, Part 2

Schedule

than 0.4% total combustible or organic materials or which satisfy the detonation resistance test described in Schedule 2 to the Ammonium Nitrate Materials (High Nitrogen Content) Safety Regulations 2003^(a) “the detonation resistance test”; or

- (b) 15.75% or less by weight and unrestricted combustible materials,

and which are capable of self-sustaining decomposition according to the UN Trough Test specified in United Nations Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria (3rd revised Edition), Part III, subsection 38.2.

1, Part 2

(a) SI 2003/1082

**Guidance
Schedule 1, Part 2**

390 The ‘test’ described in paragraph (a) is referred to in notes 2 and 4 below.

Schedule

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 –

- (a) 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%;
- (b) more than 15.75% by weight for mixtures of ammonium nitrate and ammonium sulphate; or
- (c) more than 28% by weight for mixtures of ammonium nitrate with dolomite, limestone and/or calcium carbonate with a purity of at least 90%,

and which satisfy the detonation resistance test.

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

This applies to –

- (a) ammonium nitrate and preparations of ammonium nitrate in which the nitrogen content as a result of the ammonium nitrate is –
 - (i) between 24.5% and 28% by weight, and which contain not more than 0.4% combustible substances; or
 - (ii) more than 28% by weight, and which contain not more than 0.2% combustible substances; and
- (b) 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 satisfying the detonation resistance test.

This applies to –

- (a) 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, that are being or have

1, Part 2

Schedule

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; or

- (b) fertilisers which do not fall within Notes 1(a) and 2 because they do not satisfy the detonation resistance test, other than fertilisers which –
- (i) at the time of delivery to a final user satisfied the detonation resistance test; but
 - (ii) later became degraded or contaminated; and
 - (iii) are temporarily present at the establishment of the final user prior to their return for reworking, recycling or treatment for safe use or to their being applied as fertiliser.

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:

International 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-PeCDD	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	1,2,3,4,7,8-HxCDF	} 0.1
1,2,3,6,7,8-HxCDD		1,2,3,7,8,9-HxCDF	
1,2,3,7,8,9-HxCDD		1,2,3,6,7,8-HxCDF	
1,2,3,4,6,7,8-HpCDD	0.01	2,3,4,6,7,8-HxCDF	} 0.01
OCDD	0.001	1,2,3,4,6,7,8-HpCDF	
		1,2,3,4,7,8,9-HpCDF	} 0.001
		OCDF	

* (T = tetra, Pe = penta, Hx = hexa, Hp = hepta, O = octa)

8 (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) 28% nitrogen content by weight as a result of ammonium nitrate corresponds to 80% ammonium nitrate

1, Part 2

Guidance

Ammonium nitrate

391 Ammonium nitrate has four separate entries in the list of named substances in order to cover a range of ammonium nitrate-based products which are different in nature. They are described in Notes 1 to 4 above.

392 Note 1 relates to ammonium nitrate-based compound/composite fertilisers (ammonium nitrate with phosphate and/or potash, more commonly designated as NPK, NP or NK, where N, P and K denote the three main plant nutrients) which are capable of self-sustaining decomposition according to the UN Trough Test, and otherwise known as 'cigar burners'. Those with nitrogen content between 15.75% and 24.5% by weight, derived from ammonium nitrate must either have less than 0.4% total combustible/organic substances or fulfil the requirements of the Detonation Resistance Test specified in Note 1.

393 Note 2 relates to ammonium nitrate-based fertilisers, either;

- (a) straight nitrogen type (including mixtures with inert materials such as dolomite, limestone and/or calcium carbonate) containing more than 28% nitrogen by weight derived from ammonium nitrate;
- (b) compound/composite type (see paragraph 392) containing more than 24.5% nitrogen by weight derived from ammonium nitrate; or
- (c) mixtures with ammonium sulphate containing more than 15.75% nitrogen by weight derived from ammonium nitrate;

and which fulfil the requirements of the Detonation Resistance Test as specified in Note 1.

394 Note 3 relates to technical grade ammonium nitrate. This includes essentially pure material (crystalline or porous prills), aqueous ammonium nitrate solutions with more than 80% ammonium nitrate by weight and mixtures of technical grade ammonium nitrate with a nitrogen content of 24.5% by weight or greater, derived from ammonium nitrate. Mixtures with greater than 28% nitrogen by weight, derived from ammonium nitrate must contain not more than 0.2% combustible/organic substances, while for those between 24.5% and 28% nitrogen by weight derived from ammonium nitrate, this limit is raised to 0.4%.

395 Note 4 relates to both ammonium nitrate-based fertilisers and technical-grade ammonium nitrate from Notes 2 and 3 respectively which no longer meet the specification and ammonium nitrate-based fertilisers (Notes 1 and 2), which do not fulfil the requirements of the Detonation Resistance Test as specified in Note 1. Out of specification refers to material which does not comply, or no longer complies, with the relevant specification of Notes 2 and 3. This includes material rejected during the manufacturing process and material that has been or is going to be returned from the final user to a manufacturer (including blenders), or supplier (including temporary storage) for reworking, recycling or any other treatment to enable safe use.

Potassium nitrate

396 Potassium nitrate and potassium nitrate-based fertilisers have separate entries in the list of named substances to cover potassium nitrate in prilled/granular form (Note 5) and crystalline form (Note 6).

Schedule 1, Part 2

Guidance

Schedule 1, Part 2

Petroleum products

397 The final named substance in Part 2, 'petroleum products' is actually a group of substances but is restricted to the ones named:

- (a) gasolines and naphthas;
- (b) kerosenes (including jet fuels);
- (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams).

398 Many other substances can fall under the term petroleum products but only those listed in paragraph 397 come under this category; any others would fall under the relevant generic category in Part 3 (unless named in Part 2).

Schedule

Part 3: Categories of substances and preparations not specifically named in Part 2

<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
<i>Categories of dangerous substances</i>	<i>Quantity in tonnes</i>	
1 VERY TOXIC	5	20
2 TOXIC	50	200
3 OXIDIZING	50	200
4 EXPLOSIVE (see Note 2) where the substance, preparation or article is an explosive within UN/ADR Division 1.4	50	200
5 EXPLOSIVE (see Note 2) where the substance, preparation or article is an explosive within 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
7a HIGHLY FLAMMABLE, where the substance or preparation falls within the definition given in Note 3 (b) (i)	50	200
7b HIGHLY FLAMMABLE liquids, where the substance or preparation falls within the definition given in Note 3 (b) (ii)	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:		
(a) R50: "Very toxic to aquatic organisms" (including R50/53)	100	200
(b) R51/53: "Toxic to aquatic organisms: may cause long term adverse effects in the aquatic environment"	200	500
10 ANY CLASSIFICATION not covered by those given above in combination with risk phrases –		
(a) R14: "Reacts violently with water" (including R14/15)	100	500
(b) R29: "in contact with water, liberates toxic gas"	50	200

1, Part 3

Schedule

Notes

1 Substances and preparations shall be classified for the purposes of this Schedule according to regulation 4 of the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002, whether or not the substance or preparation is required to be classified for the purposes of those Regulations. Note that the CHIP Regulations are amended annually and replaced from time to time and any reference to CHIP is to the current version.

In the case of substances and preparations with properties giving rise to more than one classification, for the purposes of these Regulations 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.

2 An “explosive” means —

- (a) a substance or preparation which creates the risk of an explosion by shock, friction, fire or other sources of ignition (risk phrase R2);
- (b) a substance or preparation which creates extreme risks of explosion by shock, friction, fire or other sources of ignition (risk phrase R3); or
- (c) 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^(a).

(a) 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).

Included in this definition are pyrotechnics, which for the purposes of these Regulations mean substances (or mixtures of substances) designated to produce heat, light, sound, gas or 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 phrase R2 or R3, the UN/ADR classification shall take precedence over assignment of risk phrases.

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

- (a) 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).”
- (b) Division 1.2: “Substances and articles which have a projection hazard but not a mass explosion hazard.”
- (c) 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 —
 - (i) combustion of which gives rise to considerable radiant heat; or
 - (ii) which burn one after another, producing minor blast or projection effects or both.”

Schedule

- (d) *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."*
- (e) *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."*
- (f) *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 these Regulations. If the quantity is not known, then, for the purposes of these Regulations, the whole article shall be treated as explosive.

3 "Flammable", "highly flammable" and "extremely flammable" 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 R10), supporting combustion;*
- (b) *highly flammable liquids –*
 - (i) *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 R17); 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;*
 - (ii) *substances and preparations having a flash point lower than 21°C and which are not extremely flammable (risk phrase R11, second indent); and*
- (c) *extremely flammable gases and liquids –*
 - (i) *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 R12, first indent); and*
 - (ii) *gases which are flammable in contact with air at ambient temperature and pressure (risk phrase R12, second indent), which are in a gaseous or supercritical state; and*
 - (iii) *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 rules shall be applied to determine the application of these Regulations to the establishment.*

1, Part 3

Schedule

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 –

- (a) q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Part 2 or 3 of this Schedule; and
- (b) Q_{Ux} = the relevant qualifying quantity for substance or category x from column 3 of Part 2 or 3,

then these Regulations apply.

If the sum –

$q_1/Q_{L1} + q_2/Q_{L2} + q_3/Q_{L3} + q_4/Q_{L4} + q_5/Q_{L5} + \dots$ is greater than or equal to 1,
where –

- (a) q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Part 2 or 3 of this Schedule; and
- (b) Q_{Lx} = the relevant qualifying quantity for substance or category x from column 2 of Part 2 or 3,

then these Regulations, save regulations 7 to 14, apply.

These rules shall be used to assess the overall hazards associated with toxicity, flammability and eco-toxicity. They must therefore be applied three times –

- (a) for the addition of substances and preparations named in Part 2 and classified as toxic or very toxic, together with substances and preparations falling into category 1 or 2;
- (b) for the addition of substances and preparations named in Part 2 and classified as oxidising, explosive, flammable, highly flammable or extremely flammable, together with substances and preparations falling into category 3, 4, 5, 6, 7a, 7b or 8; and
- (c) for the addition of substances and preparations named in Part 2 and classified as dangerous for the environment (R50 (including R50/53) or R51/53), together with substances and preparations falling into category 9(a) or 9(b),

and the relevant provisions of these Regulations shall apply if any of the sums thereby obtained is greater than or equal to 1.

1, Part 3

Guidance

Application of the Regulations

399 If an establishment is covered by one of the exclusions in regulation 3(2) the COMAH Regulations do not apply at all. Otherwise application of the Regulations, whether at lower-tier or top-tier, is determined by Schedule 1.

400 The test for application is essentially simple and in two parts:

- (a) Are there present, or likely to be present, in the establishment one or more substances which are either named in Part 2 of this Schedule or covered by the generic categories shown in Part 3?

If the answer to that question is no, the Regulations do not apply. If yes:

- (b) Does the quantity present, or likely to be present, equal or exceed the quantity given in column 2 or column 3 for the substance or category?

Schedule 1, Part 3

Guidance

401 If the quantity present or likely to be present is less than the qualifying quantity, or threshold, in column 2, the Regulations do not apply. If it equals or exceeds the qualifying quantity in column 3, the Regulations apply in full; this is known as the top-tier. If it exceeds only the qualifying quantity in column 2, regulations 7 to 14 do not apply; this is known as the lower-tier.

402 There are four additional factors to take into account when applying the above test:

Aggregation

403 Note 4 following Part 3 of this Schedule requires the quantities of all the dangerous substances present in an installation to be added together as partial fractions of their threshold quantities. If the total equals or exceeds 1, the Regulations apply. This sum must be done for comparison with both the lower-tier and top-tier thresholds.

404 Only the quantities of substances with similar hazards are added in this way (paragraphs (a), (b) and (c) at the end of Note 4). So substances classified toxic and very toxic are added together; all oxidising, explosive and flammable substances are added together; and all substances classified dangerous for the environment are added together. Quantities of substances with unrelated hazards are not added, so, for example, the amounts of substances classified as toxic would not be added to the amounts of substances classified as flammable.

405 The quantities for all substances of similar hazards are added together in this way whether they are from Part 2 or Part 3 of the Schedule but using the threshold value from whichever part the substance is from. So, for example, if an establishment held ethylene oxide and propylene oxide, both of which appear in Part 2 and are classified as extremely flammable, their quantities would be added together and added to any other extremely flammable, highly flammable, flammable, explosive, or oxidising substances present using the partial fraction formula according to paragraph (b) of Note 4.

406 The aggregation rule is only for determining if the Regulations apply and will not be needed in every situation. If an establishment has even one substance present above its top-tier threshold, it is immediately top-tier and the aggregation rule becomes irrelevant. An establishment with no single substance present above the top-tier threshold would still be a top-tier establishment if the aggregation rule gave a result equal to or greater than 1 for the top-tier threshold. Similarly, a site with no substances present above the lower-tier threshold would be subject to the lower-tier regime if the aggregation rule gave a result equal to or greater than 1 for the lower-tier threshold. It could even be subject to the top-tier regime if the aggregation rule gave a result equal to or greater than 1 for the top-tier threshold.

407 Appendix 2 gives some examples of how aggregation works in practice.

The 2% rule

408 Paragraph 4 of Part 1 of this Schedule allows a quantity of a dangerous substance to be ignored if it is no larger than 2% of its threshold quantity and its location is such that it cannot initiate a major accident elsewhere on site. Note that numerous small quantities stored together are counted as one, for example several small cylinders of toxic gas, each containing less than the 2% threshold, stored adjacent to each other would be counted as one.

409 Appendix 2 gives some examples of how the 2% rule works in practice.

Schedule 1, Part 3

Guidance

Substances generated in a major accident

410 It is possible that an establishment which has no dangerous substances present on site could generate them during the course of an accident. Indeed, the major accident at Seveso, Italy, in 1976 which generated dioxin when a reaction producing pesticides went out of control, occurred on premises where no dangerous substances were present. To ensure that such establishments are subject to these controls, regulation 2(3) brings into scope establishments where dangerous substances may be generated during the loss of control of an industrial chemical process. For further information on this point see paragraphs 76-79.

Non-classified substances

411 For the purpose of this Schedule the classification of a dangerous substance (including pesticides) is that given by the CHIP Regulations, except for flammable and explosive substances which are classified according to the rules in the notes following Part 3 of this Schedule. However, there are occasions when a substance does not need classifying by the CHIP Regulations but can be capable of causing a major accident. For example, a dangerous substance generated as a by-product in a process and fed into another process elsewhere in the plant does not need classifying by CHIP as it is not being 'supplied'. Another example is waste which does not need classifying by CHIP because of the separate classification rules under the European Waste Catalogue.

412 The phrase 'whether or not the substance or preparation is required to be classified for the purposes of those Regulations' in Note 1 following Part 3 of this Schedule requires that such substances must be classified, by the operator, in accordance with the self-classification rules of the CHIP Regulations. Application of the COMAH Regulations is then determined in the normal way.

413 The CHIP Approved Supply List (ASL) lists those dangerous substances for which a classification has been agreed across the European Union, and operators must use the classification given in the ASL when determining whether COMAH applies to their activities. Substances which are not listed in the ASL must be classified by the operator in accordance with the self-classification rules in the CHIP Regulations.

Classification

414 A substance may come within scope of the COMAH Regulations if it is classified in any of the categories of dangerous substances listed in Part 3 of this Schedule. It is important to note that it is the classification of a substance (or preparation), and not the labelling, which is relevant for COMAH purposes. For example, substances or preparations which are classified as Category 1 or 2 Carcinogenic, Mutagenic or Toxic for Reproduction are assigned the toxic danger symbol (T), which is applied to the label. However, because it is the classification, and not the labelling, which is relevant for determining the application of the COMAH Regulations, these substances and preparations should not be treated as though they were 'toxic' for COMAH purposes. This does not prevent them being subject to COMAH if they have another classification that would bring them into scope.

Mixtures and preparations

415 Parts 2 and 3 of this Schedule relate only to pure substances. However, Note 2 in Part 1 of this Schedule requires mixtures and preparations (which includes solutions) to be treated in the same way as substances if the substance or substances which they contain:

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- (a) fall within the general concentration limits set by Schedule 3 to the CHIP Regulations; or
- (b) are covered by individual concentration limits specified in the CHIP ASL; or
- (c) are covered by special concentration limits set out elsewhere in this Schedule.

416 The rule for the general concentration limits in paragraph 415(a) is that if a substance classified as 'very toxic' is diluted, it retains its 'very toxic' classification down to a concentration of 7%. Below this it is classified as 'toxic'. It remains 'toxic' on further dilution until the concentration reaches 1%. Below this it is classified as 'harmful'. So a mixture/preparation containing 7% or more of a very toxic substance is treated as if it were the pure substance and the weight to be considered for application purposes is the total weight of the mixture/preparation, not just the weight of active ingredient. Similarly substances classified toxic remain toxic down to 25%, below which they are classified as harmful.

417 Substances named in Part 2 of this Schedule follow the same rules but retain their own thresholds. Therefore arsenic pentoxide, which is named in Part 2 and is classified toxic, remains toxic down to a concentration of 25%. The total weight of a mixture/preparation containing arsenic pentoxide must be compared with the arsenic pentoxide thresholds of 1 tonne (lower-tier) and 2 tonnes (top-tier), not the toxic thresholds of 50/200 tonnes. Mixtures with both Part 2 and Part 3 toxic/very toxic substances follow the same rules but the part 2 thresholds only apply if the concentration of the named substance remains above the appropriate concentration. For example a mixture with more than 25% arsenic pentoxide would be classified as toxic and the quantity compared with the arsenic pentoxide threshold but if the concentration of arsenic pentoxide was below 25% but there was also a generic toxic present and the concentration of the two together was over 25%, then the mixture would be toxic and the threshold to be used would be the generic toxic threshold.

CHIP guidance

418 The primary guidance on the CHIP Regulations can be found in several HSE publications. See the 'Further reading' at the end of this guidance.

Quantity

419 Paragraph 4 of Part 1 refers to 'maximum quantities which are present at any one time'. Regulation 2(3) makes this include anticipated presence. The quantity present will normally vary and may at times fall below the relevant threshold but if it is known, or anticipated, that the quantity may sometimes exceed the threshold, the maximum anticipated quantity should be used for determining application. See regulation 2(3) for further guidance on this point (paragraphs 73-75).

420 Establishment is defined in regulation 2 as the whole of an area under the control of the same person. All dangerous substances present in the establishment must be included when determining application, other than where the substances are in transport or in a pipeline (see regulation 3(2)).

Aerosols

421 Dangerous substances in aerosols present particular difficulties for classification purposes. An aerosol will contain a product, which may or may not be a dangerous substance in its own right, and a propellant, which in most cases is LPG but may be dimethyl ether or a compressed gas such as nitrogen or carbon dioxide. CHIP requires mixtures and preparations to be tested for classification purposes but there are no suitable tests for use with aerosols. EU Member States have agreed that aerosols should be classified by aggregation of the contents

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according to the aggregation rules (see paragraphs 403-407). The total quantity of LPG in aerosols should be determined and compared with the thresholds set out in Schedule 1, Part 2. The result should be aggregated with that for any other dangerous substances present in the aerosols or elsewhere on site.

Dual classified substances

422 Some substances have dual classification and if aggregation of these is necessary it must be done separately for each classification using the appropriate threshold for the classification in question. For dual classified substances named in Part 2 the substance's own threshold would be used for each aggregation. For example, methanol, which is highly flammable and toxic, must be aggregated both with other flammables and with other toxics but methanol's own thresholds would be used in each case, ie 500 tonnes for lower-tier and 5000 tonnes for upper-tier.

Flammable substances

423 The definitions of flammable substances in the notes following Part 3 are generally straightforward. However, the second indent of 3(b)(i) is easily confused with 3(c)(iii). The definition in 3(b)(i) covers flammable liquids which are kept at elevated temperature and/or pressure but below their atmospheric boiling point and 3(c)(iii) covers flammable liquids which are above their boiling point. The same substance could fall into either 3(b)(i) or 3(c)(iii) depending on whether it was above or below its boiling point.

Explosives

424 The term 'explosive' includes all substances and preparations with explosive properties whether manufactured or supplied as intentional explosives or not. It includes explosives within the scope of the Manufacture and Storage of Explosives Regulations 2005 as well as other substances with explosive properties. Substances and preparations are classified as explosives in accordance with the UN/ADR scheme and their response to certain mechanical and thermal stimuli as set out in Annex V of Directive 67/548/EEC. Application of the tests also allows assignment of the risk phrase R2 or R3.

425 Explosives are divided into two categories. The least energetic explosive substances, preparations and articles, which have been assigned on classification to UN hazard division 1.4, comprise one category; all other explosives comprise the second category. This includes substances, preparations and articles containing explosive or pyrotechnic substances or preparations which have been assigned on classification to UN hazard divisions 1.1, 1.2, 1.3, 1.5 or 1.6, and all other substances and preparations assigned risk phrases R2 or R3. The UN/ADR classification takes precedence over assignment of risk phrases.

Flammable solids

426 Categories 6, 7 and 8 in Part 3 are restricted to gases and liquids by the definitions in Note 3 following Part 3. Consequently, flammable solids are not subject to COMAH.

Schedule 1, Part 3

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SCHEDULE 2 PRINCIPLES TO BE TAKEN INTO ACCOUNT WHEN PREPARING MAJOR ACCIDENT PREVENTION POLICY DOCUMENT

(This Schedule sets out the provisions of Annex III to the Directive)

Regulation 5(3)

- 1. For the purpose of implementing the operator's major accident prevention policy and safety management system account shall be taken of the following elements. The requirements laid down in the major accident prevention policy document should be proportionate to the major accident hazards presented by the establishment.*
- 2. The major accident prevention policy should be established in writing and should include the operator's overall aims and principles of action with respect to the control of major accident hazards.*
- 3. The safety management system should include the part of the general management system which includes the organisational structure, responsibilities, practices, procedures, processes and resources for determining and implementing the major accident prevention policy.*

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Major accident prevention policy (MAPP)

427 The purpose of the MAPP is to provide a statement of senior management's commitment to achieving high standards of major hazard control, together with an indication that there is a management system covering all the elements set out in this Schedule. The schedule comprises the usual elements of a management system but is aimed specifically at major hazard control. Operators should state what they want to achieve under each element of the MAPP, describe the framework for achieving it and indicate how they will measure progress. If existing safety and environmental policies cover the elements in this Schedule they may not need amendment to meet the requirements of these Regulations. The final element of the MAPP requires operators to review periodically the aims and the means of achieving them.

428 As long as all the specific elements of a safety management system are covered, operators are free to format the documentation in a way which suits them. It is not essential that the order in which the information is presented is the same as in this Schedule. The amount of detail in the document should be proportionate to the nature of the hazards at the establishment. The MAPP should indicate that the more detailed arrangements in place further down the hierarchy of management measures reflect the scale of hazards present. Top-tier operators have to set out their policy and describe their safety management systems (SMS) for implementing the policy in a safety report. The requirements for top-tier establishments are explained in Schedule 4. Lower-tier operators simply have to set out their policy in enough detail to show that the operator has established an SMS. All operators, whether top- or lower-tier, must have an adequate SMS in place.

Safety management system (SMS)

429 The guidance which follows is intended to help operators understand the essential elements of an SMS and associated human factor issues, and relate this to the control of major accident hazards. Primarily the focus is on process safety and the prevention of loss of containment. It is not intended that the MAPP

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should contain a full description of the SMS. You will find more information on the key elements of an SMS in HSE's publication *Successful health and safety management*.¹³

4. *The following issues shall be addressed by the safety management system -*

- (a) *organisation and personnel - the roles and responsibilities of personnel involved in the management of major hazards at all levels in the organisation. The identification of training needs of such personnel and the provision of the training so identified. The involvement of persons working in the establishment;*

430 The SMS should clearly indicate the responsibilities of all personnel involved in the management of major hazards. The operator should identify the skills and abilities needed by such personnel, and provide any necessary training.

431 The roles, responsibilities, accountability, authority and interrelation of all personnel who manage, perform or verify work affecting safety should be defined, particularly for staff responsible for:

- (a) design, operation and maintenance of plant;
- (b) the provision of resources, including human resources, for SMS development and implementation;
- (c) action to ensure staff awareness of hazards, and compliance with the operator's MAPP;
- (d) identification, recording and follow-up of corrective or improvement actions;
- (e) control of abnormal situations, including emergencies;
- (f) identifying training needs, provision of training, and evaluation of its effectiveness;
- (g) co-ordinating the implementation of the system and reporting to senior management; and
- (h) inspection and maintenance of the installation.

432 Employees and others present at the establishment, for example contractors, should be involved in the arrangements for management of major hazards and their implementation. Particular attention should be paid to contractors to ensure they receive the necessary information and training. They need to be aware of the hazards involved and the roles and responsibilities of key personnel.

433 This element of the MAPP should contain a brief description of the approach to the arrangements for selecting and recruiting competent personnel, identifying and meeting their training needs, monitoring their performance and allocating roles and responsibilities at appropriate levels. For example, it should set out how the operator goes about identifying and delivering training needs. Details of training programmes and training records are not required but it should include a reference to more detailed documentation. Likewise, this element of the MAPP would set out the general framework for how roles and responsibilities for safety are assigned, leaving it to supporting documents to specify the particular responsibilities and functions of personnel.

- (b) *identification and evaluation of major hazards - adoption and implementation of procedures for systematically identifying major hazards arising from normal and abnormal operation and the assessment of their likelihood and severity;*

434 Operators should develop and implement procedures to systematically identify and evaluate hazards arising from their activities (in both normal and abnormal conditions) and from the substances and materials handled or produced in them.

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The procedures should address human factors with the same rigour as engineering and technical issues and should be described in the SMS. They should be formal, systematic, and critical. There should also be systematic procedures for the definition of measures both for the prevention of accidents and for the mitigation of their consequences.

435 The SMS should include an assessment of the skills and knowledge required by those responsible for the identification and evaluation of major hazards, including, where appropriate, a team approach in order to find the necessary combination and range of theoretical and practical knowledge to develop and implement appropriate procedures.

436 The SMS should describe how hazard identification and evaluation procedures are applied to all relevant stages from project conception through to decommissioning, including:

- (a) hazards arising from, or identified in, the course of planning, design, engineering, construction, commissioning, and development activities;
- (b) the normal range of process-operating conditions, hazards of routine operations and of non-routine situations, in particular start-up, maintenance, shutdown and temporary activities;
- (c) incidents and possible emergencies, including those arising from component or material failures, external events, and human factors, including failures in the SMS itself;
- (d) hazards of decommissioning, abandonment, and disposal;
- (e) hazards from former activities; and
- (f) external hazards, including those arising from natural hazards (including abnormal temperatures, fire, flood, earthquake, strong winds, tidal waves), from transport operations including loading and unloading, from neighbouring activities, and from malicious or unauthorised action.

437 The SMS should describe the arrangements for considering lessons learned from previous incidents and accidents (both within and outside the organisation concerned), from operating experience of the establishment concerned or similar ones, and from previous safety inspections and audits.

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- (c) *operational control - adoption and implementation of procedures and instructions for safe operation, including maintenance of plant, processes, equipment and temporary stoppages;*

438 The operator should prepare, keep up to date and have readily available the information on process hazards, design limits, operational limits and controls coming from the hazard identification and risk evaluation procedures.

439 Based on these, the SMS should describe documented procedures to ensure safe design and operation of plant, processes, equipment and storage facilities. In particular, these procedures should cover:

- (a) design of plant, processes, equipment and storage facilities;
- (b) commissioning;
- (c) start-up;
- (d) all phases of normal operations, including test, maintenance and inspection;
- (e) detection of, and response to, departures from normal operating conditions;
- (f) temporary or special operations;
- (g) operation under maintenance conditions;
- (h) normal shutdown;
- (i) emergency operations including shutdown;
- (j) decommissioning; and

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(k) selection and management of contractors.

440 Safe working practices should be defined for all activities relevant to operational safety.

441 Procedures, instructions, methods of work and job aids should be developed in co-operation with the people who are required to follow them, and should be expressed in a form they can understand and use. The operator should ensure these procedures are implemented and provide the training necessary.

442 These written procedures should be made available to all staff responsible directly or indirectly for operation, and where appropriate to others involved, such as maintenance staff. They should also be subject to periodic review both to ensure that they are current and accurate, and to ensure that they are actually followed.

443 The mechanisms for developing, communicating, revising and updating procedures will need to be covered but the procedures themselves need not be included. For example, a permit-to-work system might be mentioned but the detail of when the system is used, who authorises permits, who makes plant safe and to what standard etc, can be left to detailed documentation and referred to in the MAPP.

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(d) *management of change - adoption and implementation of procedures for planning modifications to, or the design of new installations, processes or storage facilities;*

444 Experience (for example the Flixborough disaster in 1974) has shown management of change to be an essential factor in the prevention and control of major accidents. The operator should adopt and implement management procedures for planning and controlling all changes in people, the organisation, plant, processes and process variables, materials equipment, procedures, software, and design or external circumstances which are capable of affecting the control of major accident hazards. This approach should cover permanent, temporary and urgent operational changes as well as changes to the management arrangements themselves. The SMS should address:

- (a) definition of what constitutes a change;
- (b) assignment of responsibilities and authorities for initiating change;
- (c) identification and documentation of the change proposed and of its implementation;
- (d) identification and analysis, where appropriate, of any safety implications of the change proposed;
- (e) definition, explanation where appropriate, documentation, and implementation of the safety measures deemed appropriate, including information and training requirements, as well as the necessary changes to operational procedures; and
- (f) definition and implementation of appropriate post-change review procedures and corrective mechanisms, and subsequent monitoring.

445 Management of change procedures must also be applied during the design and construction of new installations, processes, and storage facilities.

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(e) *planning for emergencies - adoption and implementation of procedures to -*

- (i) *identify foreseeable emergencies by systematic analysis;*
- (ii) *prepare, test and review emergency plans to respond to such*

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- emergencies; and*
(iii) *provide specific training for all persons working in the establishment.*

Guidance

446 Regulation 9 requires top-tier sites to have an on-site emergency plan complying with Schedule 5 and this will fulfil the requirements of Schedule 2. Operators of lower-tier sites do not have to comply with regulation 9 but must have arrangements in place to deal with an emergency to comply with Schedule 2 although these are not required to be to the depth required by Schedule 5. The procedures required by the SMS must ensure that an adequate emergency plan is developed, adopted and implemented. These procedures will define the skills and abilities required, including, where appropriate, a team approach in order to find the necessary combination of theoretical and practical knowledge.

447 The operator should develop and maintain procedures to identify, by systematic analysis, starting with hazard identification, foreseeable emergencies arising from its activities, and to record and keep up to date the results of this analysis. Plans to respond to such potential emergencies should be prepared, tested and reviewed on a regular basis. The procedures should also cover the necessary arrangements for communicating the plans to all those likely to be affected by an emergency.

448 The MAPP should indicate the range of emergencies considered. Note that there will be some overlap here with (b) above, in the way that operators identify major hazards. It should then indicate that plans are in place to respond to the emergencies identified. The MAPP should also state the policy on testing and periodic review. The procedures should ensure that the results of testing are fed into the review process and should also ensure that any new emergencies identified, for example following plant modifications, are covered in the plans.

449 Training for emergencies is an important consideration. The MAPP should describe the arrangements for training employees and others working in the establishment in the procedures to be followed in emergencies. See also paragraph 430.

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- (f) *monitoring performance - adoption and implementation of procedures for the on-going assessment of compliance with the objectives set by the operator's major accident prevention policy and safety management system, and the mechanisms for investigation and taking corrective action in the case of non-compliance. The procedures should cover the operator's system for reporting major accidents or near misses, particularly those involving failure of protective measures, and their investigation and follow-up on the basis of lessons learnt;*

Guidance

450 For an operator's arrangements to be adequate, not only must the MAPP say the right words, but also the conditions at the establishment must reflect what is said. The SMS should describe how the operator maintains procedures to ensure that safety performance can be monitored and compared with the safety objectives defined. This should include determining whether plans and objectives are being achieved, and whether arrangements to control risks are being implemented, before an incident or accident occurs. To help ensure the necessary controls are in place, operators should identify relevant performance indicators that are important and measure against these to maintain performance. This includes establishing the root causes of any failings identified (active monitoring), as well as the reporting and investigation of failures which have resulted in incidents or accidents (reactive monitoring).

Schedule 2

Guidance

451 Active monitoring should include inspections of safety-critical plant, equipment and instrumentation as well as assessment of compliance with training, instructions and safe working practices.

452 Reactive monitoring requires an effective system for reporting incidents and accidents and an investigation system which identifies not only the immediate causes but also any underlying failures which led to the event. It should pay particular attention to cases of failure of protective measures (including operational and management failures), and should include investigation, analysis, and follow-up (including giving information to personnel involved) to ensure that the lessons learned are applied to future operation.

453 The operator should define the responsibility for initiating investigation and corrective action in the event of non-compliance with any part of the SMS. In particular this should include revision, where necessary, of procedures or systems to prevent recurrence. The information from performance monitoring should also form a significant input to the audit and review processes (see (g) below).

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(g) *audit and review - adoption and implementation of procedures for periodic systematic assessment of the major accident prevention policy and the effectiveness and suitability of the safety management system; the documented review of performance of the policy and safety management system and its updating by senior management.*

Guidance

454 The terms 'audit' and 'review' are used here for two different activities.

Audit

455 In addition to the routine monitoring of performance, the operator should carry out periodic audits of the SMS as a normal part of its business activities. An audit is a structured process of collecting information on the efficiency, effectiveness and reliability of the total SMS. It should lead to a plan for corrective action. For this purpose the operator should adopt and implement an audit plan. This plan, which should be described in the SMS, should be reviewed at appropriate intervals and should define:

- (a) the areas and activities to be audited;
- (b) the frequency of audits for each area concerned;
- (c) the responsibility for each audit;
- (d) the resources and personnel required for each audit, bearing in mind the need for expertise, operational independence, and technical support;
- (e) the audit protocols to be used (which can include questionnaires, checklists, interviews both open and structured, measurements and observations);
- (f) the procedures for reporting audit findings; and
- (g) the follow-up procedures, including responsibilities.

Review

456 A review is a decision-making process, based on the results of monitoring performance and/or auditing. Senior management should, at appropriate intervals, review the operator's overall safety policy and strategy. The results of monitoring performance and/or auditing should be used as the basis for making decisions about improving performance. The SMS should describe the review mechanisms.

Schedule 2

SCHEDULE 3 INFORMATION TO BE INCLUDED IN A NOTIFICATION

(This Schedule sets out the provisions of Article 6(2) of the Directive)

Regulation 6(1)

The information referred to in regulation 6(1) is as follows -

1. *the name and address of the operator;*
2. *the address of the establishment concerned;*
3. *the name or position of the person in charge of the establishment;*
4. *information sufficient to identify the dangerous substances or category of dangerous substances present;*

457 The notification should, whenever possible, provide enough information to identify the dangerous substances, both those named and those belonging to a generic category in Schedule 1. It should also make clear under which categories named substances come when an aggregation has been carried out. However, in situations such as warehouses where there are frequent inventory fluctuations, and often not much notice of receipt of named substances, it is acceptable to notify ceiling limits of generic categories of substances (see paragraph 73).

458 The notification should cover all substances which cause an establishment to be subject to the Regulations. Top-tier establishments should include any substances present between the lower-tier and top-tier thresholds as well as those above the top-tier threshold. Establishments that are brought into scope by the aggregation rules should include sufficient information to make the application clear. A detailed inventory is not necessary for the notification.

5. *the quantity and physical form of the dangerous substances present including, in relation to petroleum products listed in Part 2 of Schedule 1, the quantity falling within each of classes (a) to (c);*

459 Operators should remember that the relevant quantity for the application of the Regulations is that which can be anticipated to be present - see regulation 2(3), Schedule 1 and associated guidance. Therefore, the notification could usefully distinguish the differences between actual and anticipated quantities of dangerous substances, where these are likely to be significant. For petroleum products in Part 2 of Schedule 1 the total quantity should be broken down to detail the totals for each of the three sub-sections - gasolines and naphthas; kerosenes (including jet fuels); gas oils (including diesel fuels, home heating oils and gas oil blending streams).

6. *a description of the activity or proposed activity of the installation concerned;*

460 This need be nothing more than a brief description of the activity, for example 'manufacture of ammonium nitrate fertilisers'. There is no need for a detailed description of the installation such as would be required in a safety report. If notifications have been prepared for other legislation which include such descriptions, they can be referenced and attached.

7. *details of the elements of the immediate environment liable to cause a major*

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accident or to aggravate the consequences thereof.

461 There are two elements to this. Firstly, operators should describe any other establishments or features of the environment which could cause a major accident. This will help the competent authority to comply with its duty to designate sites in accordance with regulation 16. Secondly, they must describe elements of the surrounding environment which might make the consequences of a major accident more serious. This should include both the built and natural environment, for example:

- (a) nearby housing;
- (b) other buildings where there might be large numbers of people or people who might be particularly vulnerable to a major accident;
- (c) sites of special scientific interest; and
- (d) agriculture/food production.

462 In all cases there should be a general description of the land use in the vicinity of an establishment. This need not involve detailed surveys to establish, for instance, precise population density or state of the flora and fauna, but important environmental features should be included in the description.

463 The competent authority will use the information provided to set a consultation distance around the establishment for land-use planning purposes.

Schedule 3

Schedule

SCHEDULE 4 PURPOSE AND CONTENTS OF SAFETY REPORTS

Regulations 5(6), 7(1), (5) and (7) and 8(1)

Part 1: Purpose of safety reports

(This Part sets out the provisions of Article 9(1) of the Directive)

The purposes referred to in regulation 7 are as follows -

1. *demonstrating that a major accident prevention policy and a safety management system for implementing it have been put into effect in accordance with the information set out in Schedule 2;*

4, Part 1

Guidance

464 Effective management systems are vital in ensuring high and sustainable standards of control over major accidents. Schedule 2 lists the elements which must be addressed by the SMS, including specific and implied human factor issues. The emphasis on the SMS is in line with the general approach in Great Britain since the HSW Act came into force and builds on its requirement to prepare a safety policy and the MHSWR duty to have health and safety arrangements in place. But this regulation focuses specifically on systems to control major accident hazards to people and the environment.

465 Although operators of both top-tier and lower-tier establishments are required to prepare a MAPP, there is a significant difference in the level of supporting detail to be provided. For lower-tier establishments, it can be a concise document, setting out little more than the operator's policy and supporting information showing that an SMS has been established. For top-tier establishments, however, the MAPP is part of the safety report and should be supported by details of how it is to be implemented in practice. For further guidance see Schedule 2 and paragraph 471. Although the MAPP has to be included in the safety report, operators may also wish to have it as a stand-alone document for distribution internally within the organisation or to external bodies.

Schedule 4, Part 1

Schedule
4, Part 1

2. *demonstrating that major accident hazards have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for persons and the environment;*

Guidance

466 The duty to take all measures necessary to prevent and mitigate major accidents is created by regulation 4, and the duty to demonstrate it by regulation 15(1). The safety report is part of that demonstration. Operators must show that all major accident hazards have been identified, that the precautions are as described and appropriate to the hazards. Reference should be made to techniques used such as HAZOP and HAZAN and appropriate methods for considering human factors in safety critical tasks such as human HAZOP. The demonstration should provide a clear link between the various accident scenarios identified and the measures which are in place to defend against them. The safety report should demonstrate how the necessary measures will prevent foreseeable failures which could lead to major accidents. There should also be a clear link to the SMSs which keep the necessary measures in place.

Schedule 4, Part 1

Schedule
4, Part 1

3. *demonstrating that adequate safety and reliability have been incorporated into the -*

Schedule

4, Part 1

- (a) *design and construction, and*
- (b) *operation and maintenance,*

of any installation and equipment and infrastructure connected with its operation which are linked to major accident hazards within the establishment;

Guidance

467 The physical integrity of plant and equipment must be considered at all stages from design through construction to operation and maintenance. This includes:

- (a) justification of the design chosen, for example whether:
 - (i) inherent safety principles have been followed;
 - (ii) storage tanks are required;
 - (iii) the inventory of dangerous substances can be reduced;
 - (iv) pipework can be shortened, or access improved (given other constraints such as physical space, availability of supplies etc);
- (b) evidence that the containment for hazardous substances has been designed to have structural integrity, that suitable materials have been selected for its construction and that measures have been taken to protect against overpressure;
- (c) evidence and justification of design standards and specifications used, with an explanation of how they provide a defence against the various potential failure modes identified (including references to fault analysis methods used);
- (d) evidence that construction is to the required specification and the design intent delivered;
- (e) evidence that the plant is operated within the design specification;
- (f) justification and reasoning behind maintenance programmes, for example:
 - (i) frequency;
 - (ii) safe systems of work;
 - (iii) whether preventive or reactive;
- (g) arrangements for the periodic examination and assessment of safety-critical components;
- (h) competence of maintenance staff.

Schedule 4, Part 1

Schedule

4, Part 1

4. demonstrating that on-site emergency plans have been drawn up and supplying information to enable the off-site plan to be drawn up in order to take the necessary measures in the event of a major accident;

Guidance

468 Regulations 9 and 10 require operators of top-tier establishments to prepare internal emergency plans and to provide the necessary information for local authorities to prepare external emergency plans. Operators do not need to include the plans in the safety report, although they should refer to them and provide a summary of the key elements.

Schedule 4, Part 1

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4, Part 1

5. providing sufficient information to the competent authority to enable decisions to be made in terms of the siting of new activities or developments around establishments.

Guidance

469 The safety report needs to provide enough information to enable decisions to be made in connection with developments on or near any existing COMAH establishments. New establishments must obtain hazardous substances consent as well as planning permission in order to operate and these applications will provide some of the necessary information (see paragraph 146). Pre-construction safety reports will supplement this when they are received.

Schedule 4, Part 1

Schedule

4, Part 2

Part 2: Minimum information to be included in safety report

(This Part sets out the provisions of Annex II to the Directive)

The information referred to in regulation 7(1), (5) and (7) is as follows -

470 This Schedule details the minimum information that must be provided in a safety report. All the information prescribed in this part must be provided, although it does not have to be set out in the same order.

1. *Information on the management system and on the organisation of the establishment with a view to major accident prevention.*

This information shall contain the elements set out in Schedule 2.

471 For a top-tier establishment, the MAPP is part of the safety report and not necessarily a separate document. It includes the operator's overall aims and objectives relating to major accident prevention. There should be a clear link between the MAPP, the SMS for implementing it, and the preventive and mitigating measures described in the report. For further information on MAPP contents see the guidance on Schedule 2 and Chemical Information Sheet No 3 *Major accident prevention policies for lower-tier COMAH establishments*.⁷

2. *Presentation of the environment of the establishment:*

- (a) *description of the site and its environment including the geographical location, meteorological, geological, hydrographic conditions and, if necessary, its history;*
- (b) *identification of installations and other activities of the establishment which could present a major accident hazard;*
- (c) *description of areas where a major accident may occur.*

472 Maps of adequate scale should be provided showing the establishment and surrounding land-use within an area which could be affected by accidents. Both the land use (for example industry, agriculture, urban developments, environmentally sensitive locations) and the location of the most significant features, (for example hospitals, schools, other industrial sites, airports, harbours, water abstraction points) should be clearly indicated.

473 The layout of the establishment as a whole and its relevant installations should be clearly shown on adequately scaled diagrams or maps. Larger-scale maps showing any sections of the establishment with particular importance for major accidents should also be provided.

474 The layout should adequately identify installations and other features of the establishment including:

- (a) main storage facilities;
- (b) process installations;
- (c) location of relevant substances and their quantities;
- (d) relevant equipment (including vessels and pipes);
- (e) utilities and services;
- (f) means of access and egress from installations within the establishment and from the establishment - this should indicate normal and emergency routes; and
- (g) control rooms, offices and other occupied buildings such as workshops and

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canteens which could be vulnerable in a major accident.

475 The environment and the surroundings of the establishment should be described in a level of detail proportionate to the hazard. It should be clear that the operator has adequately assessed the hazards posed to safe operation and the vulnerability of the area to the impact of major accidents.

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3. *Description of installation:*

- (a) *a description of the main activities and products of the parts of the establishment which are important from the point of view of safety, sources of major accident risks and conditions under which such a major accident could happen, together with a description of proposed preventive measures;*
- (b) *description of processes, in particular the operating methods;*

4, Part 2

476 The safety report should describe the establishment and installations in sufficient detail to enable the competent authority to have a clear picture of its purpose, location, activities, intrinsic hazards, services and technical equipment for safe operation.

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(c) *description of dangerous substances:*

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(i) *inventory of dangerous substances including -*

- *the identification of dangerous substances: chemical name, the number allocated to the substance by the Chemicals Abstract Service, name according to International Union of Pure and Applied Chemistry nomenclature;*
- *the maximum quantity of dangerous substances present;*

4, Part 2

477 Operators should include an inventory of the dangerous substances which are present or likely to be present at the establishment. They should include all dangerous substances which meet the definition in regulation 2. Where establishments come within the scope of these Regulations by virtue of the aggregation rules (see Note 4 following Schedule 1), or because they have threshold quantities of generic categories (Schedule 1, Part 3), all the relevant individual dangerous substances should be identified in the inventory. It is not necessary to include very small quantities of dangerous substances if they cannot have an effect on major accident hazards.

Guidance

478 The inventory should be kept up-to-date although it does not need to take account of minor changes and fluctuations, only those which could have a significant effect on the major accident hazard. The inventory should also be amended when new dangerous substances are introduced and when existing ones have been permanently removed. Some establishments, such as warehouses, may stock many substances and the inventory is likely to be constantly changing. In such cases, operators may provide generic information (for example, X tonnes of flammables in total, typically comprising Y tonnes of substance A and Z tonnes of substance B, but which may also include W tonnes of substance C). Although there is no need to update the safety report for minor changes, the competent authority may wish to check precise inventory details when they visit. In cases where operators are unsure whether the inventory should be updated they may contact the competent authority for advice; it may also be necessary to update the safety report in accordance with regulation 8(4). Note also the requirement in regulation 6(4) to notify the competent authority when there is a significant change in the quantity of dangerous substances.

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- (ii) *physical, chemical, toxicological characteristics and indication of the hazards, both immediate and delayed for people and the environment;*
- (iii) *physical and chemical behaviour under normal conditions of use or under foreseeable accidental conditions.*

Guidance

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479 The description of substances should cover such things as characteristic temperatures and pressures, flash points, ignition temperatures, explosion limits, data on reactions and rates of decomposition. It should also include data on toxicology such as toxicity, persistence, acute and long-term effects, synergistic effects, and ecotoxic and bioaccumulation data.

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4. *Identification and accidental risks analysis and prevention methods:*
- (a) *detailed description of the possible major accident scenarios and their probability or the conditions under which they occur including a summary of the events which may play a role in triggering each of these scenarios, the causes being internal or external to the installation;*
 - (b) *assessment of the extent and severity of the consequences of identified major accidents including maps, images or, as appropriate, equivalent descriptions, showing areas which are liable to be affected by such accidents arising from the establishment;*

Guidance

480 The safety report should show that the operator has identified all potential sources of major accidents. The analysis should be thorough and searching and should take into account the probability of occurrence and the magnitude of the consequences. Substances which do not meet the regulation 2 definition of dangerous substance but can contribute to a major accident hazard should also be considered, even though they are not included in the inventory. The analysis should:

- (a) identify 'safety-relevant sections' (ie installations or parts of installations);
- (b) identify initiating events; and
- (c) assess the consequences of potential major accidents.

481 The approach used in deriving these should be explained and justified. The demonstration of the adequacy of the prevention, control and mitigation measures should be based on a correct assessment of the full range of hazards.

482 Regulations do not prescribe a particular approach to hazard analysis and risk assessment. The choice of particular techniques or methodologies (either qualitative or quantitative) may be site-specific or risk-specific. The degree of effort required from the operator should be proportionate to the hazard and risk present. Quantified arguments might be a convenient way of limiting the scope of the safety report, by demonstrating that an adverse event has a very remote probability of occurring or that a particular consequence is relatively minor.

483 In all cases, and whatever approach is adopted, the process of analysis and assessment should achieve the four objectives of:

- (a) identifying installations or parts of installations which are particularly relevant to major accidents;
- (b) identifying hazard sources, ie the conditions and events which threaten the safe operation of the establishment, installation or plant in all phases of operation (start-up, normal operation, shut-down, loading/unloading etc);
- (c) assessing the adequacy of the prevention, control and mitigation measures; and
- (d) assessing the consequences of a major accident.

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Guidance

484 The safety report should present the main results and main arguments of the hazard analysis and risk assessment. The detailed source documents should be available to the competent authority on request. The report should refer to these documents, in particular those which contain information on the assumptions made and judgement criteria used.

485 The accident scenarios identified, their consequences and likelihood should be clearly documented, since they will be used as the basis for inputs to external emergency plans and to decisions on land-use planning. The documentation should include maps, photographs etc as appropriate. Maps need not be Ordnance Survey maps but must be adequate for the purpose.

486 Information on the extent and severity of the consequences of major accidents is simply who might get hurt and how badly for the identified possible major accidents. The operator may have to combine the predicted hazard ranges, harm criteria and information on the people and the environment that might be affected to satisfy the need for this minimum information. This needs to be explicit and transparent, for example in the form of the number of casualties for each major accident or hazard ranges superimposed on maps or drawings with explanatory and descriptive text. This will enable the operator to determine the depth of demonstration needed, ie where consequences are minor only a limited demonstration to show operations are carried out to current and relevant good practice may be all that is needed.

487 In addition to the direct consequences of major accidents there may be knock-on effects, ie secondary events involving substances which are not dangerous within the terms of COMAH but can be harmful to people or the environment, for example milk discharged into a river could have very serious effects on the fish and if the release were the result of a major accident it would have to be considered as one of the possible consequences. The safety report should include these where they can be identified.

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(c) *description of technical parameters and equipment used for the safety of installations.*

Guidance

488 Preventive measures include measures introduced to prevent or limit the consequences of a sequence of events that may lead to a major accident for processes where the hazards cannot be removed. In this context they mean:

- (a) the main technical measures to control the process and to prevent a loss of containment of dangerous substances, for example by engineering design, process control and instrumentation; and
- (b) the means of reducing the hazard, for example use of pressure relief valves, isolation valves, location and design of control rooms.

489 The report should explain, and justify, how all necessary measures have been taken compared to the hazards identified during the life cycle of the installation.

490 Examples of the types of prevention, control and mitigation measures which are likely to be particularly important in safety reports are:

- (a) structural integrity of containment;
- (b) process control systems, including back-ups;
- (c) systems for protecting and ensuring the continuity of electrical supplies;
- (d) fire and explosion protection systems;
- (e) devices for limiting the scale or consequences of accidental releases, for example scrubbing systems, water-spray vapour screens, emergency catch

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- pots or collection vessels, emergency shut-off valves, secondary containment systems;
- (f) alarm systems including fire and gas detection;
 - (g) automatic shutdown systems;
 - (h) inerting and suppression systems;
 - (h) safety instrumented systems;
 - (i) emergency venting through valves or explosion panels;
 - (j) rapid shutdown and other emergency procedures; and
 - (k) special precautions against unauthorised actions.

491 The safety report should be clear which risk assessment methods are being used or whether other arguments are being used, for example use of standards to demonstrate safe operation. Any criteria for eliminating certain hazards from further consideration at an early stage in the risk evaluation should be clearly explained and justified.

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5. *Measures of protection and intervention to limit the consequences of an accident:*

- (a) *description of the equipment installed in the plant to limit the consequences of major accidents;*
- (b) *organisation of alert and intervention;*
- (c) *description of mobilisable resources, internal or external;*
- (d) *summary of elements described in sub-paragraphs (a), (b) and (c) necessary for drawing up the on-site emergency plan.*

4, Part 2

Guidance

492 Measures of protection and intervention are not limited solely to emergency response procedures. Mobilisable resources, item 5(c), might include, for example, a description of secondary containment equipment such as booms for spillage retention in water courses. The report should contain an adequate description of all the relevant resources which will need to be mobilised in the event of a major accident. Information should be provided in the safety report to show that a systematic and comprehensive assessment of the mitigation, rescue and recovery arrangements have been put into place to cope with major accidents.

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6. *The names of the relevant organisations involved in the drawing up of the report.*

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493 Operators may involve outside organisation, for example consultants to prepare their safety report, but the report must identify any such contributions.

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SCHEDULE 5 EMERGENCY PLANS

Regulations 9(1) and 10(1)

Guidance

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494 Detailed guidance on all aspects of emergency planning can be found in HSE's *Emergency planning for major accidents: Control of Major Accident Hazards Regulations*.¹ This is relevant to regulations 9-12 and Schedule 5.

Schedule

Part 1: Objectives of on-site and off-site emergency plans

(This Part sets out the provisions of Article 11(2) of the Directive)

The objectives referred to in regulations 9(1) and 10(1) are -

1. *containing and controlling incidents so as to minimise the effects, and to limit damage to persons, the environment and property;*
2. *implementing the measures necessary to protect persons and the environment from the effects of major accidents;*
3. *communicating the necessary information to the public and to the emergency services and authorities concerned in the area;*
4. *providing for the restoration and clean-up of the environment following a major accident.*

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Part 2: Information to be included in on-site emergency plan

(This Part sets out the provision of paragraph 1 of Annex IV to the Directive)

The information referred to in regulation 9(1) is as follows -

1. *names or positions of persons authorised to set emergency procedures in motion and the person in charge of and co-ordinating the on-site mitigatory action;*
2. *name or position of the person with responsibility for liaison with the local authority responsible for preparing the off-site emergency plan;*
3. *for foreseeable conditions or events which could be significant in bringing about a major accident, a description of the action which should be taken to control the conditions or events and to limit their consequences, including a description of the safety equipment and the resources available;*
4. *arrangements for limiting the risks to persons on site including how warnings are to be given and the actions persons are expected to take on receipt of a warning;*
5. *arrangements for providing early warning of the incident to the local authority responsible for setting the off-site emergency plan in motion, the type of information which should be contained in an initial warning and the arrangements for the provision of more detailed information as it becomes available;*

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6. *arrangements for training staff in the duties they will be expected to perform, and where necessary co-ordinating this with the emergency services;*

7. *arrangements for providing assistance with off-site mitigatory action.*

Schedule

5, Part 3

Part 3: Information to be included in off-site emergency plan

(This Part sets out the provisions of paragraph 2 of Annex IV to the Directive)

The information referred to in regulation 10(1) is as follows -

1. *names or positions of persons authorised to set emergency procedures in motion and of persons authorised to take charge of and co-ordinate off-site action;*

2. *arrangements for receiving early warning of incidents, and alert and call-out procedures;*

3. *arrangements for co-ordinating resources necessary to implement the off-site emergency plan;*

4. *arrangements for providing assistance with on-site mitigatory action;*

5. *arrangements for off-site mitigatory action;*

6. *arrangements for providing the public with specific information relating to the accident and the behaviour which it should adopt;*

7. *arrangements for the provision of information to the emergency services of other Member States in the event of a major accident with possible transboundary consequences.*

SCHEDULE 6 INFORMATION TO BE SUPPLIED TO THE PUBLIC

(This Schedule sets out the provisions of Annex V to the Directive)

Regulation 14(3) and 25

495 Much of the Schedule refers to information which the operator already knows. However, some items will require consultation with other people.

The information referred to in regulation 14(3) is as follows -

1. *name of operator and address of the establishment;*

496 'Operator' is defined in regulation 2(1). The full address should be given.

2. *identification, by position held, of the person giving the information;*

497 The person giving the information should occupy a senior position in the organisation and their full title should be given. If the local authority is to distribute the information on behalf of the company it may be appropriate to explain why.

3. *confirmation that the establishment is subject to these regulations and that the notification referred to in regulation 6 or the safety report has been submitted to the competent authority;*

498 A short statement to this effect is sufficient.

4. *an explanation in simple terms of the activity or activities undertaken at the establishment;*

499 The activity should be described in non-technical language and in a way which a lay reader can understand. The raw materials and the end product can usefully be mentioned to help describe the activity. The history and development of the on-site activity may also help in the case of established installations.

5. *the common names or, in the case of dangerous substances covered by Part 3 of Schedule 1, the generic names or the general danger classification of the substances and preparations involved at the establishment which could give rise to a major accident, with an indication of their principal dangerous characteristics;*

500 This should be restricted to those substances or preparations which could cause a major accident. There is no need to describe other substances in the establishment. The generic classifications may be given in the case of storage activities falling within Part 3 of Schedule 1.

501 The principal dangerous characteristics should be described, particularly those which will be the most important in the event of a major accident. The delayed and long-term effects following an acute exposure should be mentioned.

6. *general information relating to the nature of the major accident hazards, including their potential effects on the population and the environment;*

502 The major accident hazards, the type and scale of potential events and the effects on the population and the environment should be described in terms that the lay reader can understand. A general description of the arrangements made to

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control the risks and the likelihood of an incident may be useful for giving people a broader understanding of the activity.

7. *adequate information on how the population concerned will be warned and kept informed in the event of a major accident;*

503 It is important that the public know how they will be informed in the event of an accident. This should be agreed with the emergency planners and the emergency services who may be involved in dealing with an accident and the details included in the public information. The warning may consist of site-operated alarm signals or may involve other methods, depending on the nature and scale of the possible accidents, the location of the establishment and the arrangements in the emergency plan. Details of how the warning system will be tested should be included, so that people may become familiar with it without being unduly alarmed. Advice about how to recognise the early signs of a major emergency would also be helpful as it is sometimes not possible to give a warning.

504 It is important to explain how information will be given during any incident. Again, liaison with emergency planners and others involved is essential. Details of any television or radio stations (with their frequencies) should be given. An explanation of how people will be told that the event is over should also be given.

8. *adequate information on the actions the population concerned should take, and on the behaviour they should adopt, in the event of a major accident;*

505 It is important to explain to people what action they should take and to give easy-to-follow practical advice, such as how and where to shelter, and any practicable steps to reduce exposure to toxic substances. The public should be asked not to use the telephone in order to keep lines free for emergency use. Collecting children from school could lead to exposure and it will be helpful to discuss this and other aspects of the emergency procedures with local schools. Emergency planners may be able to help further on this point and in relation to any special arrangements necessary for helping other vulnerable groups in the community.

9. *confirmation that the operator is required to make adequate arrangements on site, in particular liaison with the emergency services, to deal with major accidents and to minimise their effects;*

506 A simple statement is adequate together, perhaps, with a brief description of the liaison with the emergency services.

10. *a reference to the off-site emergency plan for the establishment. This should include advice to co-operate with any instructions or requests from the emergency services at the time of an accident;*

507 Reference should be made to the off-site emergency plan and it should be made clear that the plan has been prepared by the relevant authority (whose name should be given) and that it takes account of information provided by the operator about possible major accidents. The importance of co-operating with instructions or requests from the emergency services dealing with an accident should be emphasised. The emergency planner or the emergency services may wish to include information about these instructions or requests.

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11. details of where further relevant information can be obtained, unless making that information available would be contrary to the interests of national security or personal confidentiality or would prejudice to an unreasonable degree the commercial interests of any person.

Guidance

508 The most relevant source of further information is the operator's safety report which will be made available to the public through the public registers detailed in Schedule 8. There are also other sources, however, such as the off-site emergency plan itself, prepared by the local authority.

509 Operators may wish to arrange a contact point within their own organisation where further information could be obtained. If so, details could be included in the public information.

Schedule 6

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SCHEDULE 7 CRITERIA FOR NOTIFICATION OF A MAJOR ACCIDENT TO THE EUROPEAN COMMISSION AND INFORMATION TO BE NOTIFIED

Regulation 21(1) and (2)

Part 1: Criteria

(This Part sets out the provisions of Annex VI to the Directive)

The criteria referred to in regulation 21(1) are as follows -

1. Any accident covered in sub-paragraph (a) or having at least one of the consequences described in paragraphs (b), (c), (d) and (e) must be notified to the Commission -

(a) substances involved:

any fire or explosion or accidental discharge of a dangerous substance involving a quantity of at least 5% of the qualifying quantity laid down in column 3 of Parts 2 or 3 of Schedule 1;

(b) injury to persons and damage to property:

an accident directly involving a dangerous substance and giving rise to one of the following events:-

- (i) a death,
- (ii) six persons injured within the establishment and kept in hospital for at least 24 hours,
- (iii) one person outside the establishment kept in hospital for at least 24 hours,
- (iv) dwellings outside the establishment damaged and unusable as a result of the accident,
- (v) the evacuation or confinement of persons for more than two hours (person x hours): the value is at least 500,
- (vi) the interruption of drinking water, electricity, gas or telephone services for more than two hours (person x hours): the value is at least 1000;

(c) immediate damage to the environment:

(i) permanent or long-term damage to terrestrial habitats -

- 0.5 ha or more of a habitat of environmental or conservation importance protected by legislation,
- 10 or more hectares of more widespread habitat, including agricultural land;

(ii) significant or long-term damage to freshwater and marine habitats:

- 10 km or more of river or canal,
- 1 ha or more of a lake or pond,
- 2 ha or more of delta,

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- 2 ha or more of a coastline or open sea;
- (iii) significant damage to an aquifer or underground water:
 - 1 ha or more;
- (d) damage to property:
 - (i) damage to property in the establishment of at least ECU 2 million,
 - (ii) damage to property outside the establishment of at least ECU 0.5 million;
- (e) cross-border damage:

any accident directly involving a dangerous substance giving rise to effects outside the territory of the Member State concerned;

2. Accidents or 'near misses' which Member States regard as being of particular technical interest for preventing major accidents and limiting their consequences and which do not meet the quantitative criteria above should be notified to the Commission.

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Part 2: Information

The information referred to in regulation 21(2) is as follows -

1. The Member State and the name and address of the competent authority;
2. The date, time and place of the major accident, including the full name of the operator and the address of the establishment involved;
3. A brief description of the circumstances of the accident, including the dangerous substances involved, and the immediate effects on persons and the environment;
4. A brief description of the emergency measures taken and of the immediate precautions necessary to prevent a recurrence.

7, Part 2

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SCHEDULE 8 PROVISION OF INFORMATION BY COMPETENT AUTHORITY

Regulation 21(4)

1. *The competent authority shall maintain a register containing the information comprised in -*

- (a) notifications to the competent authority under regulation 6;*
- (b) safety reports;*
- (ba) notifications under regulation 8(2);*
- (c) notifications under regulation 16(2);*
- (d) communications under regulation 17(1)(a);*

and such a register is in this Schedule referred to as "the register".

8

Guidance

510 The competent authority will maintain a public register giving the details listed in paragraph 1 of this Schedule. These are:

- (a) the information included in the notifications submitted by the operators of all COMAH establishments (see regulation 6 for further details);
- (b) top-tier operators' safety reports;
- (ba) any notification from an operator that the safety report for the establishment has been reviewed but not revised;
- (c) information included in notifications to operators of sites designated as domino sites (see regulation 16(2) for further details); and
- (d) the competent authority's conclusions from its examination of operators' safety reports.

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2. *The competent authority may remove from the register information relating to an establishment -*

- (a) after the expiration of five years from the time the establishment ceases to be subject to these Regulations; or*
- (b) if it is of the opinion that for the past five years the information has not related to current major accident hazards at the establishment.*

8

Guidance

511 If an establishment ceases to be subject to the COMAH Regulations (for example the inventory is reduced below the lower-tier threshold) the competent authority must keep on the register any information about that establishment for five years. After that it may remove it. It may also remove information five years after it ceases to be relevant to current major accident hazards, for example the establishment has stopped using a particular substance due to a change in the process used.

Schedule 8

Schedule

3. *Where information of any description is excluded from the register by virtue of paragraphs 10 to 18 below, a statement shall be entered in the register indicating the existence of information of that description.*

8

Guidance

512 Certain information, detailed in sections 10-18 of this Schedule, can be excluded from the register, but if so, the register must indicate that the information has been excluded.

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8

4. *It shall be the duty of the competent authority -*
- (a) *to secure that the register is available, at all reasonable times, for inspection by the public free of charge; and*
 - (b) *to afford to members of the public facilities for obtaining copies of entries, on payment of reasonable charges.*

Guidance

513 The competent authority must make the register available to the public and provide facilities for copying of entries. A charge may be made for copies. In practice the registers will be available at selected offices of the EA or SEPA but each office will hold only information relating to establishments in its vicinity. Although most registers will be kept at the agency's regional head offices, in some cases local offices will hold the register. The agency's regional head office will provide information on where a particular register is kept.

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5. *The register may be kept in any form.*

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514 The form that the public register takes is not specified.

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6. *No information shall be included in the register if and so long as, in the opinion of the Secretary of State, the inclusion in the register of that information, or information of that description, would be contrary to the interests of national security.*

7. *The Secretary of State may, for the purpose of securing the exclusion from the register of information to which paragraph 6 applies, give to the competent authority directions -*

- (a) *specifying information, or descriptions of information, to be excluded from the register; or*
- (b) *specifying descriptions of information to be referred to the Secretary of State for his determination;*

and no information referred to the Secretary of State in pursuance of subparagraph (b) above shall be included in the register until the Secretary of State determines that it should be so included.

8. *The competent authority shall notify the Secretary of State of any information it excludes from the register in pursuance of directions under paragraph 7.*

9. *A person may, as respects any information which appears to him to be information to which paragraph 6 may apply, give a notice to the Secretary of State specifying the information and indicating its apparent nature; and, if he does so -*

- (a) *he shall notify the competent authority that he has done so; and*
- (b) *no information so notified to the Secretary of State shall be included in any such register until the Secretary of State has determined that it should be so included.*

Guidance

515 Information that, in the opinion of the Secretary of State, is contrary to the interests of national security cannot be included in the public register. Anyone may notify the Secretary of State that a safety report etc contains information of this nature, although in practice it is likely to be operators who do so.

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516 The Secretary of State will make the decisions on these matters. There is no appeal against his decision.

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517 There is no specified time limit for the Secretary of State to make his decision nor is there any limit on the time it may be kept from the register.

10. *No information relating to the affairs of any individual or business shall be included in the register without the consent of that individual or the person for the time being carrying on that business, if and so long as the information -*

- (a) is, in relation to him, commercially or personally confidential; and*
- (b) is not required to be included in the register in pursuance of directions under paragraph 15;*

but information is not commercially or personally confidential for the purposes of this paragraph unless it is determined under this Schedule to be so by the competent authority or, on appeal, by the Secretary of State.

11. *Where information is provided to the competent authority pursuant to a requirement imposed by or under these Regulations then, if the person providing it applies to the competent authority to have the information excluded from the register on the ground that it is commercially or personally confidential (as regards himself or another person), the competent authority shall determine whether the information is or is not commercially or personally confidential.*

12. *A determination under paragraph 11 must be made within the period of twenty eight days beginning with the date of the application and if the competent authority fails to make a determination within that period it shall be treated as having determined that the information is commercially or personally confidential.*

13. *Where, under paragraph 11 above, the competent authority determines that information is not commercially or personally confidential -*

- (a) the information shall not be entered in the register until the end of the period of twenty one days beginning with the date on which the determination is notified to the person concerned;*
- (b) that person may appeal to the Secretary of State against the decision;*

and, where an appeal is brought in respect of any information, the information shall not be entered in the register until the end of the period of seven days following the day on which the appeal is finally determined or withdrawn.

8

Guidance

518 The person providing the information detailed in paragraph 1(a)-1(c) of this Schedule may request that all or part of it is withheld from the public register on the grounds that the information is personally or commercially confidential. Any such request must be made to the competent authority in writing when the documents are submitted to it, and should include justification for the request.

519 The competent authority must make its decision on any such request, and give the operator its decision, within 28 days of receiving the request. If it fails to make a decision within 28 days, the information is deemed to qualify for exclusion from the register.

520 If the competent authority decides the information is not personally or commercially confidential and should go on the register, the operator/individual may appeal to the Secretary of State but must do so within 21 days of being informed of the competent authority's decision. If, after 21 days, there is no appeal, the information will go on the register.

521 If, on appeal, the Secretary of State upholds the competent authority's decision, the information cannot be put on the register until seven days following

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the day on which the Secretary of State made his/her decision.

522 Operators wishing to appeal to the Secretary of State should consult the HSE website for details of how to lodge an appeal.

523 The information referred to in paragraph 1(d) (which covers the competent authority's conclusions following its assessment of a safety report) of this Schedule is not 'provided to the competent authority pursuant to a requirement imposed by or under these Regulations' (paragraph 11 of this Schedule) and is not, therefore, subject to the procedure detailed in paragraphs 11-13 of this Schedule. However, it may be covered by the exclusions in paragraph 10 of this Schedule. If so, it could not be included in the register without the appropriate consent. The competent authority has procedures in place to deal with this type of situation.

Schedule 8

Schedule

8

(13A) Where information in a safety report is excluded from the register, the operator shall within 3 months after being notified of its exclusion, or such longer period as the competent authority may allow, send to the competent authority a safety report which omits that information.

Guidance

524 Once it has been agreed that certain information should be excluded from the register, the operator is responsible for providing an amended report for inclusion in the register. This applies whether the operator made the application for the information to be excluded from the register or someone else. Where an operator anticipates that certain information may be excluded from the public register, the safety report could be structured in such a way that the excluded information can easily be removed when exclusion has been agreed, for example by placing it in an annex.

Schedule 8

Schedule

8

14. Subsections (5) and (10) of section 15 of the Environmental Protection Act 1990^(a) as applied by section 22(6) of that Act and regulations made under subsection (10) of section 15 of that Act as so applied shall have effect in relation to an appeal under paragraph 13 as they have effect in relation to an appeal under section 22 of that Act, but as if any reference to an enforcing authority were a reference to the competent authority.

(a) 1990 c.43.

Guidance

Schedule 8

525 Paragraph 14 of this Schedule applies the Environmental Protection Act 1990 appeals procedure to appeals made to the Secretary of State under paragraph 13 of this Schedule.

Schedule

8

15. The Secretary of State may give to the competent authority directions as to specified information, or descriptions of information, which the public interest requires to be included in the register.

Guidance

Schedule 8

526 The Secretary of State may direct that certain types of information must be included in the public register and the competent authority will therefore not consider a request for information of that type to be withheld from the register.

Schedule

8

16. Information excluded from the register shall be treated as ceasing to be commercially confidential for the purposes of this Schedule at the expiry of the period of five years beginning with the date of the determination by virtue of which it was excluded; but the person who furnished it may apply to the competent authority for the information to remain excluded from the register on the ground that it is still commercially confidential and the competent authority shall determine whether or not that is the case.

**Schedule
8**

17. Paragraphs 13 and 14 above shall apply in relation to a determination under paragraph 16 as they apply in relation to a determination under paragraph 11.

Guidance

527 Information excluded from the register on the grounds of commercial confidentiality ceases to be excluded after five years, unless the operator makes another request to the competent authority for its continued exclusion. Any such further request would be dealt with in the same way as the original one.

Schedule 8

Schedule

8

18. Information is, for the purposes of any determination under this Schedule commercially confidential, in relation to any individual or person, if its being contained in the register would prejudice to an unreasonable degree the commercial interests of that individual or person.

Guidance

528 Commercially confidential information is considered to fall broadly into three categories: trade secrets, commercial confidences and intellectual property. In determining whether information is commercially confidential, the competent authority will consider three issues:

- (a) Would the information be useful to a competitor and be otherwise unobtainable by them?
- (b) Would disclosure of the information concerned otherwise unreasonably damage the commercial interests of the operator?
- (c) Is the information already in the public domain (for example via EPA 90 registers, and hazardous substances consent applications)?

Schedule 8

Schedule

8

19. The Environment and Safety Information Act 1988^(a) shall apply to a notice served under -

- (a) regulation 18(3) as it applies to a notice served under section 22 of the 1974 Act; or
- (b) section 21 of the 1974 Act in respect of a contravention of these Regulations,

as if the reference in the third column of the Schedule to the 1988 Act to an enforcing authority as defined in section 18(7)(a) of the 1974 Act were a reference to the competent authority.

(a) 1988 c.30.

Guidance

529 Enforcement notices served under COMAH regulation 18(3) or section 21 of the HSW Act, provided they are concerned with breaches of the COMAH Regulations, are covered by the Environment and Safety Information Act 1988 and are subject to the disclosure provisions of that Act. They will appear on the public register unless the notice has no environmental or public safety relevance.

Schedule 8

Schedule

8

20. Any information other than that referred to in paragraph 1 and which has been received by the competent authority pursuant to a requirement imposed by or under these Regulations shall, to the extent that it is not information relating to the environment for the purposes of the Environmental Information Regulations 1992^(a) be treated as being so for those purposes.

(a) SI 1992/3240.

Guidance

Schedule 8

530 The information specified in paragraph 1 of this Schedule will go on to the public register automatically, unless it is excluded by paragraphs 6 or 10. Any other information received by the competent authority under these Regulations is subject to the Environmental Information Regulations even if it would not normally be.

APPENDIX 1 CRITERIA FOR A DEROGATION UNDER REGULATION 7(12) TO LIMIT THE INFORMATION IN A SAFETY REPORT

Guidance

Appendix 1

The following text has been extracted from the European Commission publication *Explanations and guidelines for the application of the dispensation rule of Article 9, paragraph 6 of Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances*.¹⁴ The early part of the document consisting of an introduction and explanation of the procedure adopted for developing the criteria has been omitted.

Directive

The relevant text of Seveso II Directive Article 9.6:

- (a) *Where it is demonstrated to the satisfaction of the competent authority that particular substances present at an establishment, or any part thereof, are in a state incapable of creating a major-accident hazard, then the Member State may, in accordance with criteria referred to in subparagraph (b), limit the information required in safety reports 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.*
- (b) *Before this Directive is brought into application, the Commission, acting in accordance with the procedure laid down in Article 16 of Directive 82/501/EEC, shall establish harmonised criteria for the decision by the competent authority that an establishment is in a state incapable of creating a major accident hazard within the meaning of subparagraph (a). Subparagraph (a) shall not be applicable until those criteria have been established.*

EC Guidance

3.2 Substances subject to a dispensation according to Article 9, paragraph 6

Once an establishment qualifies as an upper tier establishment under the SEVESO II Directive, ie has one or more dangerous substances present in quantities equal to or above one or more qualifying quantities for the application of Article 9, the safety report must contain an updated inventory of the dangerous substances present in the establishment.

In other words, all substances present at the establishment that are 'dangerous substances' as defined in Article 3, point 4 of the Directive must be considered even if their quantities do not meet the threshold levels set out in Annex 1.

It follows that a dispensation can relate to any dangerous substances present at an establishment, irrespective of the qualifying quantities of the Directive. It is worth noting that a substance present in one part of an establishment, say one particular installation, may qualify for a dispensation when the same substance elsewhere in the establishment does not.

4 Terms used in article 9, paragraph 6

4.1 "... particular substances ..."

This term covers only *dangerous substances* as defined in Article 3, point 4 of the Directive.

EC Guidance

4.2 “...in a state incapable of creating a major-accident hazard ...”

A particular substance is deemed to be “in a state incapable of creating a major-accident hazard” if it fulfils any of the generic criteria set out in the Commission Decision of 26 June 1998.

It may be demonstrated that particular substances are incapable of creating a major accident provided certain safety measures are in place and in effect. However, a dispensation will not be granted if the “state of incapability” relies on safety measures which are active in nature, such as sprinklers or fire doors.

Whereas the term “incapable of creating a major accident hazard” in sub-paragraph (a) relates to particular substances, it relates to the establishment in sub-paragraph (b). When looking at the text in sub-paragraph (b) it is important to emphasise the wording “within the meaning of sub-paragraph (a)”. The intent of sub-paragraph (b) is simply to state that harmonised criteria are required for the application of sub-paragraph (a).

4.3 “...limit the information required in safety reports 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 dispensation granted according to Article 9 paragraph 6 permits an operator to limit the information in the safety report to those matters which are relevant to the prevention of residual major-accident hazards. The term “residual major-accident hazards” can only relate to dangerous substances present at the establishment other than those for which the dispensation has been granted (either different substances or the same substance under different circumstances).

Therefore, in general, a dispensation will not release the operator from the obligation to submit a Safety Report.

5 Criteria

The approach chosen is to establish *generic* criteria rather than allowing dispensations for specific industries, sectors or activities. These criteria are flexible enough to encompass a wide range of industries, processes and substances within the scope of the SEVESO II Directive. A dispensation according to Article 9 paragraph 6 may be granted if at least one of the criteria set out below is fulfilled.

5.1 Physical form of substance

5.1.1 Criterion

Substances in solid form, such that, under both normal conditions and any abnormal conditions which can reasonably be foreseen, a release, of matter or of energy, which could create a major-accident hazard, is not possible.

5.1.2 Explanation

The fact that the physical form of certain substances influences their major-accident potential is recognised in the SEVESO II Directive. For example, the entry for nickel compounds only in *inhalable powder* form in the list of named substances in Annex I, Part 1 of the Directive reflects the fact that solid nickel is incapable of creating a major-accident hazard, yet it is classified as being toxic.

EC Guidance

5.2 Containment and Quantities

5.2.1 Criterion

Substances packaged or contained in such a fashion and in such quantities that the maximum release possible under any circumstances cannot create a major-accident hazard.

5.2.2 Explanation

This criterion can only be applied if the quantities taken out of containment at any one time are insufficient to create a major-accident hazard.

This criterion could be applied to a store of containers of such size, construction, and contents that the release from a small number of containers would not in itself represent a major-accident hazard nor could it have any knock-on effects on other containers, provided that no reasonably foreseeable external aggression could release the contents of a large number of containers.

5.3 Location and Quantities

5.3.1 Criterion

Substances present in such quantities and at such distances from other dangerous substances (at the establishment or elsewhere) that they can neither create a major-accident hazard by themselves nor initiate a major accident involving other dangerous substances.

5.3.2 Explanation

A large establishment consisting of several installations may have dangerous substances in small and isolated quantities at installations distant from those which represent the major-accident hazard potential, and also from any other hazardous establishments.

The inability to cause a major accident, directly or indirectly, must apply to the substances concerned at all moments that they are present at the establishment. It should also be borne in mind that substances will have to be transported within the establishment, and during transport this criterion may not apply.

5.4 Classification

5.4.1 Criterion

Substances which are defined as dangerous substances by virtue of their generic classification in Annex I Part 2, but which cannot create a major-accident hazard, and for which therefore the generic classification is inappropriate for this purpose.

5.4.2 Explanation

Since the generic classifications of Annex I, Part 2 are based on the intrinsic hazard associated with a substance, there may be cases where this is not relevant in the context of a major accident.

This criterion could apply to a substance which is classified as toxic, but for which the only hazard is toxicity by ingestion, provided that route of exposure can reasonably be excluded in the event of a major accident.

EC Guidance

This criterion cannot apply to substances which are listed in Annex 1, Part 1.

6 Application for dispensation according to Article 9, Paragraph 6

6.1 Application by the operator of an upper tier establishment

6.1.1 Time limits for the submission and review of safety reports

For *new* establishments, the safety report has to be sent to the competent authority within a 'reasonable period of time' before the start of construction or operation.

For *existing* establishments and installations previously covered by the SEVESO I Directive, the safety report has to be sent to the Competent Authority by 3 February 2001.

For *existing* establishments not previously covered by the SEVESO I Directive, the safety report has to be sent to the Competent Authority by 3 February 2002.

The safety report must be reviewed and, if necessary, updated

- at least every five years or
- at the initiative of the operator or at the request of the competent authority, where justified by new facts, new technical knowledge about safety or about hazard assessment, or

in the case of a modification of a site, which means modification of the establishment, the installation, the storage facility, the (chemical) process, the nature of dangerous substance(s) or the quantity of dangerous substance(s).

6.1.2 Appropriate time of application for a dispensation

The operator must submit an application for a dispensation to the competent authority within a reasonable period of time before the expiry of the deadline(s) before which he has to send the safety report to the competent authority. If the operator wishes, he may submit, along with this application, the limited safety report which may be required in the event of his application being successful. In this context, a reasonable period of time means that the competent authority must have sufficient time to examine the application, including, if necessary, further requests for information and/or on-site inspection, and, following the decision by the competent authority, the operator must have sufficient time to take account of this decision, i.e. to complete his safety report in the case of a negative decision or to make reference in the safety report in the case of a positive decision (see point 6.4 below).

In the case of new establishments, the operator may prefer to submit the application for a dispensation together with a limited safety report. This is because in these cases - contrary to the cases where establishments are already in use - the bringing into use of the new establishment depends on the competent authority's communicating to the operator the conclusions of its examination of the Safety Report.

Submitting the application for a dispensation together with a limited safety report may also be appropriate in the event of modifications to existing establishments.

6.2 Contents of an application

An application for a dispensation should include the following details:

- a) the name or trade name of the operator and the full address of the establishment concerned;
- b) the registered place of business of the operator, with the full address;
- c) the name or position of the person in charge of the establishment, if different from (a);
- d) a general description of the activities of the establishment, and specific information concerning the installation for which a dispensation is being sought;
- e) the immediate environment of the establishment, to the extent relevant to the application;
- f) description of the dangerous substance(s) for which a dispensation is requested:
 - 1 inventory of dangerous substances including
 - the identification of dangerous substances: chemical name, CAS number, name according to IUPAC nomenclature, classification;
 - the maximum quantity of dangerous substances present or likely to be present;
 - 2 physical, chemical, toxicological and ecotoxicological characteristics;
 - 3 physical and chemical behaviour under normal conditions of use and under foreseeable accident conditions;
- g) the criterion or criteria under which a dispensation is being sought;
- h) the operator's demonstration that the criterion is applicable (for each criterion concerned);
- i) the limitation of information in the safety report which is being requested.

6.3 Reference in the safety report

In any safety report for which the information required has been limited by a dispensation, reference should be made to the dispensation concerned.

6.4 Information for the public

As Member States must ensure that the safety report is made available to the public, the public should also have access to the information that leads to permitting an operator to limit the information contained in the safety report, subject to restrictions concerning confidentiality.

7 Duties of the Competent Authorities when granting a dispensation

The competent authority should examine the application put forward and should within a reasonable period after receipt of the application communicate the conclusions of its examination to the operator, if necessary after requesting further information and/or after making an on-site inspection.

The administrative act by which a dispensation is granted should specify to which substance(s) the dispensation applies, what part of the establishment is concerned, what are the conditions of the dispensation's continuing validity, and what information is not required in the safety report.

EC Guidance

8 Communication by the Member States of a List of Establishments for which dispensations have been granted to the Commission; Information from the Commission to the Committee of Competent Authorities (CCA)

8.1 Notification of establishments for which dispensations have been granted

The Member States will notify dispensations granted to the Commission. The notification should be made as soon as possible after the dispensation has been granted. It should contain the following details:

- a) the name or trade name of the operator and the full address of the establishment concerned;
- b) a brief general description of the activities of the establishment, and information concerning the installation for which a dispensation has been granted;
- c) the particular dangerous substance(s) for which a dispensation has been granted;
- d) the reasons for the dispensation, with reference to the harmonised criteria.

8.2 Information for the Committee of Competent Authorities (CCA)

The Commission will establish a database containing information on dispensations notified by the competent authorities of the Member States.

A considered list of establishments for which dispensations have been granted will be forwarded to the Member States on an annual basis. It will contain the information mentioned under point 8.1 above.

8.3 Review of the scope of the SEVESO II Directive in specific cases

Should cases be notified to the Commission where operators of upper tier establishments can demonstrate that all dangerous substances present at their establishment are in a state incapable of creating a major-accident hazard and that therefore no major-accident potential resides, the Commission will review the scope of the SEVESO II Directive in the light of these cases, and submit a report on the subject to the CCA.

APPENDIX 2 EXAMPLES OF THE APPLICATION OF THE AGGREGATION AND 2% RULES

The following examples are for illustration purposes only and each situation should be considered carefully. In case of any doubt, the individual situation should be discussed with the competent authority.

Aggregation

Example 1

A site with 4 tonnes of hydrogen (lower-tier threshold 5 tonnes) and 1500 tonnes of flammable liquids meeting category 6 of Part 3 of Schedule 1 (lower-tier threshold 5000 tonnes). The aggregation rule gives:

$$\frac{4}{5} + \frac{1500}{5000} = 0.8 + 0.3 = 1.1$$

As this result is greater than 1, COMAH applies at lower-tier.

Example 2

A site with 150 tonnes of toxic substances meeting category 2 of Part 3 of Schedule 1 (top-tier threshold 200 tonnes) and 1 tonne of arsenic pentoxide (top-tier threshold 2 tonnes). The aggregation rule gives:

$$\frac{150}{200} + \frac{1}{2} = 0.75 + 0.5 = 1.25$$

As this result is greater than 1, COMAH applies at top-tier.

2% rule

The 2% rule is given in Schedule 1, Part 1, as follows:

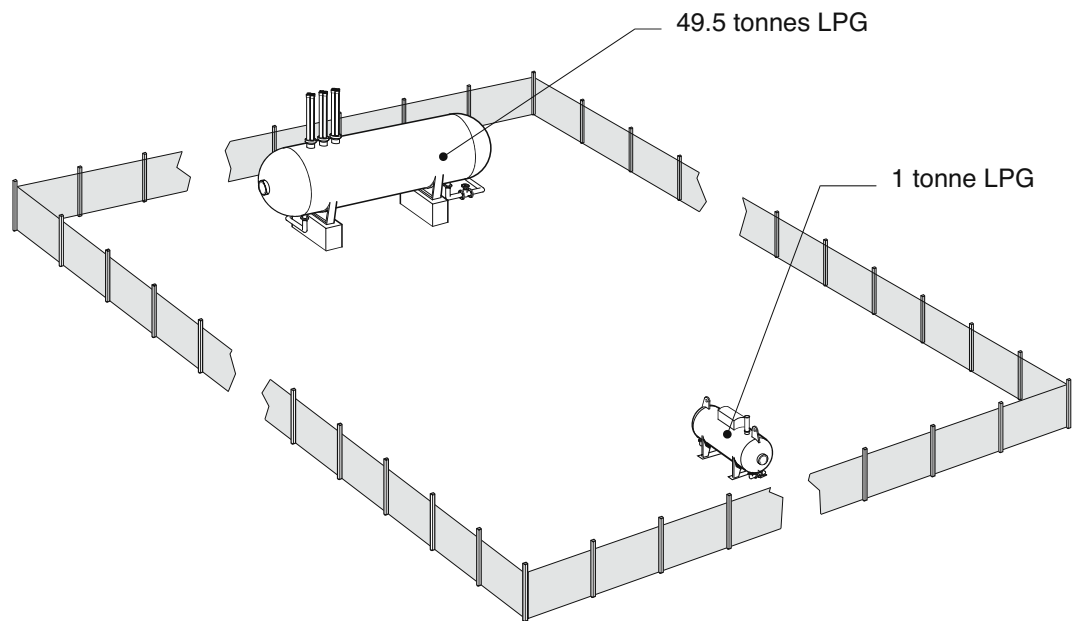
'The quantities to be considered for the application of the relevant Regulations are the maximum quantities which are present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2% of the relevant qualifying quantity shall be ignored for the purposes 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 site.'

This allows for some quantities of dangerous substances to be ignored when deciding whether the Regulations apply. Individual quantities of dangerous substances can be ignored if they fulfil these two criteria:

- (a) the quantity is 2% or less of its threshold quantity; and
- (b) its location means that it cannot start a major accident elsewhere on site.

Note that:

- (a) both criteria must be met;
- (b) the quantity involved may be capable of producing a major accident by itself;
- (c) it may be capable of starting a major accident off site; and
- (d) if it meets the criteria, it can be ignored only when determining whether the establishment is within the scope of the Regulations. If the establishment is subject to the Regulations because of the presence of other dangerous substances, any quantity of 2% or less must be taken into account when considering the sources and consequences of major accidents.



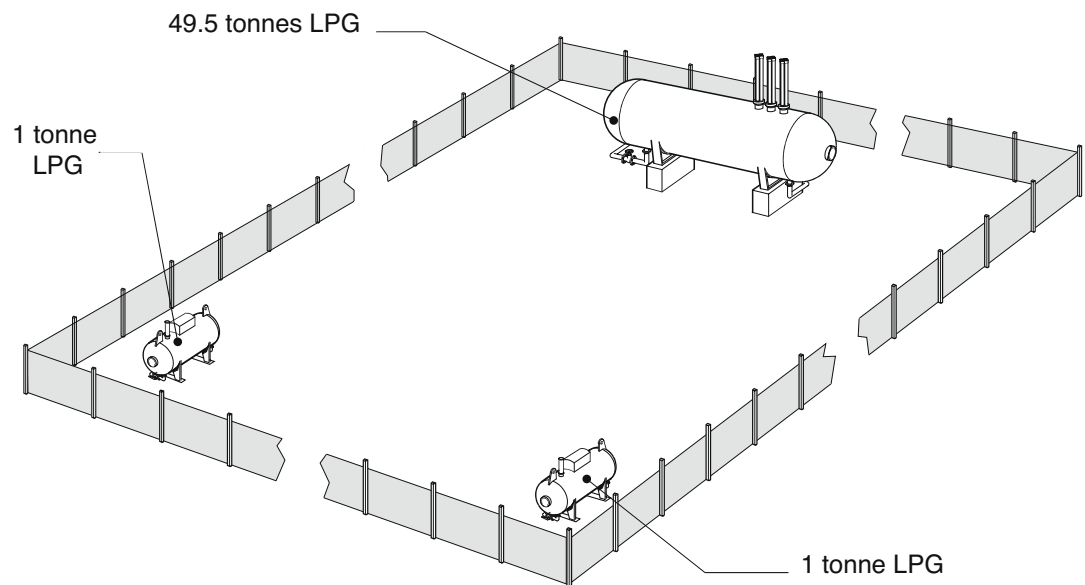
Example 1

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG; and
- (b) a small tank containing 1.0 tonne of LPG.

The small tank = 2% of lower-tier threshold (50 tonnes), but the separation from the large tank is sufficient to prevent the small tank starting a major accident at the large tank. It can therefore be ignored by the 2% rule.

The result is that COMAH does not apply, even though the total quantity of 50.5 tonnes is above the lower-tier threshold.



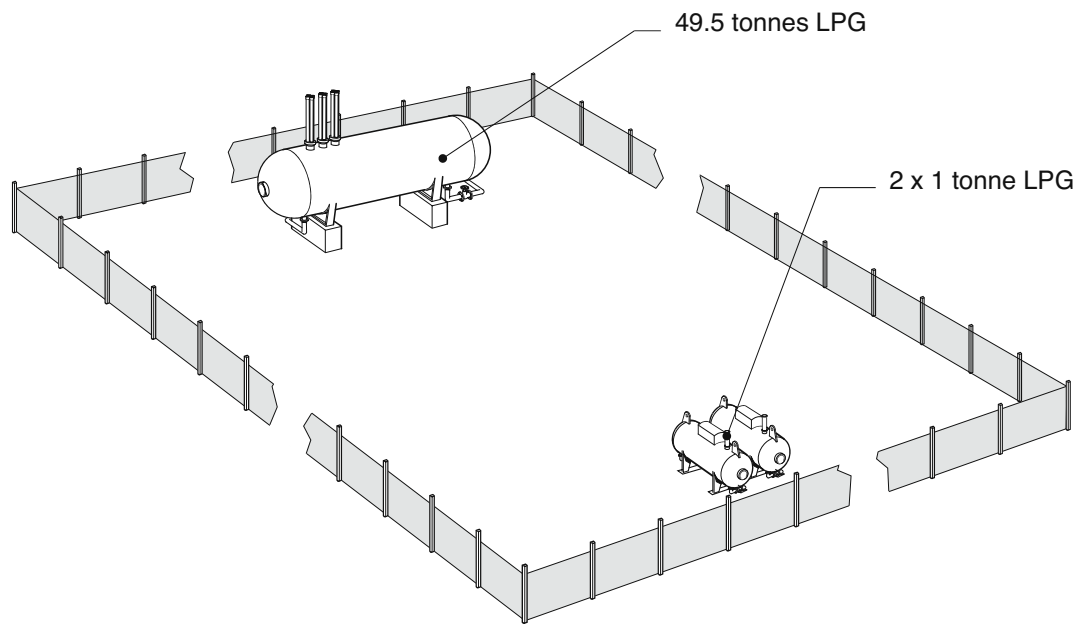
Example 2

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG; and
- (b) two small tanks each containing 1.0 tonne of LPG.

Each small tank = 2% of lower-tier threshold (50 tonnes), but their separation from the large tank and from each other is sufficient to prevent either of them starting a major accident at the other small tank or the large tank. Therefore each can be ignored by the 2% rule.

The result is that COMAH does not apply, even though the total quantity of 51.5 tonnes is above the lower-tier threshold.



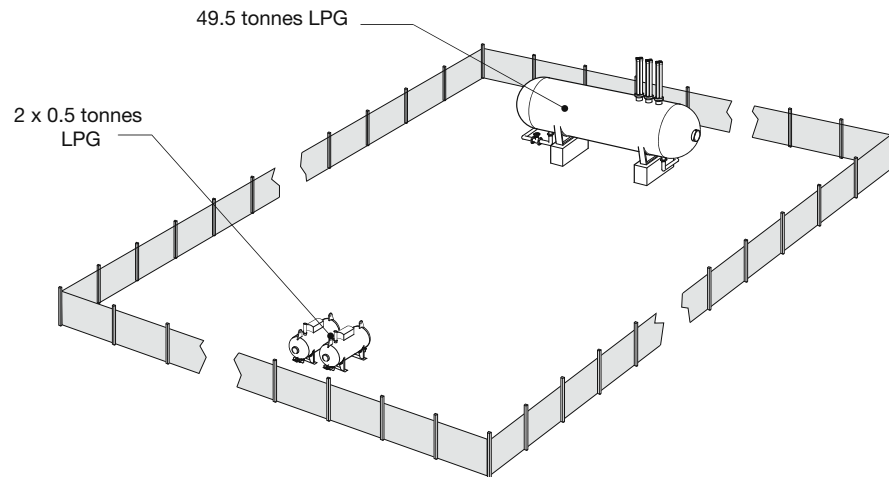
Example 3

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG; and
- (b) two small tanks each containing 1.0 tonne of LPG.

The small tanks are adjacent to each other but their separation from the large tank is sufficient to prevent the small tanks starting a major accident at the large tank.

Both small tanks = 2% of threshold (50 tonnes), but as they are adjacent they should be regarded as one quantity of more than 2%, therefore the 2% rule does not apply. As the total quantity of 51.5 tonnes exceeds the lower-tier threshold, COMAH applies to this establishment.



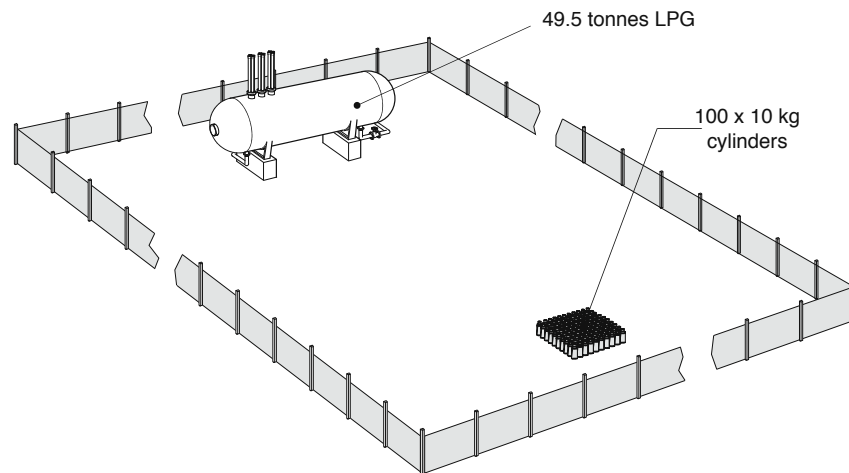
Example 4

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG; and
- (b) two small tanks each containing 0.5 tonnes of LPG.

The small tanks are adjacent to each other but well separated from the large tank.

Both small tanks = 1% of threshold (50 tonnes), but as they are adjacent they should be regarded as one quantity of 1 tonne which = 2%. As this cannot start a major accident elsewhere on site, the 2% rule applies and COMAH does not apply even though the total quantity is greater than the lower-tier threshold.



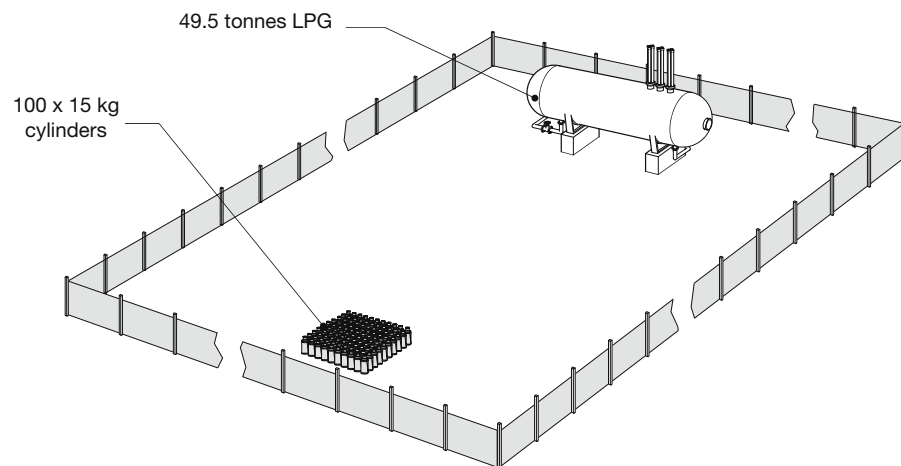
Example 5

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG; and
- (b) a compound containing 100 x 10 kg cylinders of LPG, ie 1 tonne in total.

The separation between the compound and large tank is sufficient to prevent the cylinders starting a major accident at the large tank.

Each cylinder contains less than 2% of the lower-tier threshold (50 tonnes) and the total quantity in the cylinders is 1 tonne which is 2% of the lower-tier threshold. The cylinder compound cannot start a major accident elsewhere on site, so the 2% rule applies. Therefore COMAH does not apply to the establishment.



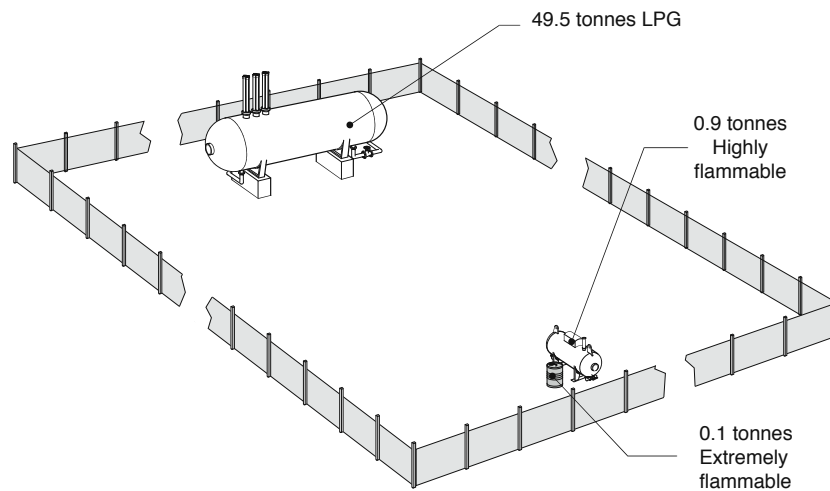
Example 6

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG; and
- (b) a compound containing 100 x 15 kg cylinders of LPG, ie 1.5 tonnes in total.

The separation between the compound and the large tank is sufficient to prevent the cylinders starting a major accident at the large tank.

Each cylinder contains less than 2% of the lower-tier threshold (50 tonnes) but as they are adjacent to each other they should be treated as one quantity of 1.5 tonnes, which is greater than 2% of the lower-tier threshold. Therefore COMAH applies to this establishment.



Example 7

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (b) a tank containing 0.9 tonnes of highly flammable liquid (lower-tier threshold 50 tonnes); and
- (c) a tank containing 0.1 tonnes of extremely flammable liquid (lower-tier threshold 10 tonnes).

The small tanks are adjacent, but their separation from the large tank is enough to prevent the small tanks starting a major accident at the large tank. The total quantity for application purposes is determined by the aggregation rules, but first it is necessary to determine if the small tanks together exceed 2% of their threshold.

To do this, each one is expressed as a percentage of its own threshold and added together:

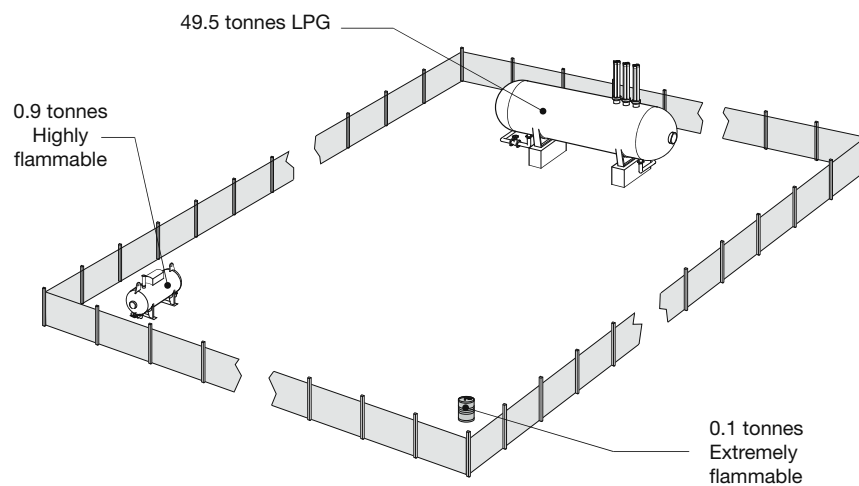
$$\frac{0.9}{50} + \frac{0.1}{10} = .018 + .01 = 1.8\% + 1.0\% = 2.8\%$$

As this is greater than 2%, they cannot be ignored for application purposes.

The aggregation rule gives:

$$\frac{49.5}{50} + \frac{0.9}{50} + \frac{0.1}{10} = 1.018$$

which is greater than 1, so COMAH applies to the establishment.



Example 8

An establishment with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (b) a tank containing 0.9 tonnes of highly flammable liquid (lower-tier threshold 50 tonnes); and
- (c) a tank containing 0.1 tonnes of extremely flammable liquid (lower-tier threshold 10 tonnes).

The separation is sufficient that neither small tank can start a major accident at either the other small tank or the large tank.

Because neither small tank exceeds 2% of its threshold, they can both be ignored for application purposes and the total quantity for application purposes is, therefore, the 49.5 tonnes of LPG. This is below its lower-tier threshold, so COMAH does not apply to the establishment.

APPENDIX 3 TIMESCALES FOR COMPLIANCE WITH REQUIREMENTS FOR MAPPS, NOTIFICATION, SAFETY REPORTS AND ON-SITE EMERGENCY

Scenario	Regulation 2 Interpretation Date COMAH applies	Regulation 5 MAPP	Regulation 6 Notifications	Regulation 7 Safety report	Regulation 9 On-site emergency plan
Proposed construction/ first-time operation of new lower-tier establishment	2(5) Date construction/ operation of establishment starts	5(1) MAPP to be provided without delay but within three months	6(1), 6(2) Pre- construction/ operation notification to be sent within a reasonable time before start of construction/ operation	n/a	n/a
Proposed construction/ first-time operation of new top-tier establishment	2(5) Date construction/ operation of establishment starts	5(6) MAPP incorporated into safety report	6(1), 6(2) Pre- construction/ operation notification to be sent within a reasonable time before start of construction/ operation	7(1), 7(5) Pre- construction/ operation report to be sent within a reasonable time before start of construction/ operation	9(2)(c) Plan to be prepared before operation starts
Non-COMAH establishment enters at lower tier due to:					
● increase in quantity of dangerous substances	2(6) Date of increase is date of start of operation	5(1) MAPP to be provided without delay but within three months	6(2) Pre-operation notification to be sent within a reasonable time before start of operation	n/a	n/a
● change in dangerous substance classification or qualifying quantity in Schedule 1 or knowledge about what dangerous substances may be generated during loss of control	n/a	5(1) MAPP to be provided without delay but within three months	6(3A) Notification to be sent within three months of regulation applying	n/a	n/a
Non-COMAH establishment enters at top tier due to:					
● increase in quantity of dangerous substances	2(6) Date of increase is date of start of operation	5(6) MAPP incorporated into safety report	6(2) Pre-operation notification to be sent within a reasonable time before start of operation	7(5) Pre- operation report to be sent within a reasonable time before start of operation	9(2)(c) Plan to be prepared before operation starts

Scenario	Regulation 2 Interpretation Date COMAH applies	Regulation 5 MAPP	Regulation 6 Notifications	Regulation 7 Safety report	Regulation 9 On-site emergency plan
● change in dangerous substance classification or qualifying quantity in Schedule 1 or knowledge about what dangerous substances may be generated during loss of control	n/a	5(6) MAPP incorporated into safety report	6(3A) Notification to be sent within three months of regulation applying	7(10A) Report to be sent without delay but within one year of regulation applying	9(2)(d) Plan to be prepared without delay but within one year of regulation applying
Lower-tier establishment moves to top tier due to:					
● increase in quantity of dangerous substances	2(6) Date of increase is date of start of operation	5(6) MAPP incorporated into safety report	6(4)(a) Notification of increase to be sent immediately	7(5) Pre-operation report to be sent within a reasonable time before start of operation	9(2)(c) Plan to be prepared before operation starts
● change in dangerous substance classification or qualifying quantity in Schedule 1 or knowledge about what dangerous substances may be generated during loss of control	n/a	5(6) MAPP incorporated into safety report	n/a	7(10A) Report to be sent without delay but within one year of regulation applying	9(2)(d) Plan to be prepared without delay but within one year of regulation applying
Top-tier establishment moves to lower tier due to:					
● decrease in quantity of dangerous substances	n/a	5(4) Review and where necessary revise MAPP	6(4)(c) Notification that regulation 7 no longer applies due to decrease to be sent immediately	n/a	n/a

Scenario	Regulation 2 Interpretation Date COMAH applies	Regulation 5 MAPP	Regulation 6 Notifications	Regulation 7 Safety report	Regulation 9 On-site emergency plan
● change in dangerous substance classification or qualifying quantity in Schedule 1 or knowledge about what dangerous substances may be generated during loss of control	n/a	5(4) Review and where necessary revise MAPP	6(4)(iii) Notification of change in information previously notified to be sent immediately	n/a	n/a
Lower-tier establishment leaves COMAH for any reason	n/a	n/a	n/a	n/a	n/a
Top-tier establishment leaves COMAH due to:					
● decrease in quantity of dangerous substances	n/a	n/a	6(4)(c) Notification that regulation 7 no longer applies due to decrease to be sent immediately	n/a	n/a
● change in dangerous substance classification or qualifying quantity in Schedule 1 or knowledge about what dangerous substances may be generated during loss of control	n/a	n/a	6(4)(b)(iii) Notification of change in information previously notified to be sent immediately	n/a	n/a

Note: The Regulation numbers referred to are those in COMAH as amended in 2005.

References

- 1 *Emergency planning for major accidents. Control of Major Accident Hazards Regulations 1999 (COMAH)* HSG191 HSE Books 1999 ISBN 0 7176 1656 9
- 2 *Consulting employees on health and safety: A guide to the law* Leaflet INDG322 HSE Books 1996 (single copy free or priced packs of 15 ISBN 0 7176 1615 0)
- 3 *The Planning (Hazardous Substances) Regulations 1992* SI 1992/656 The Stationery Office 1992 ISBN 0 11 0236564 as amended by the Planning (Control of Major Accident Hazards) Regulations 1999 SI 1999/981 The Stationery Office 1999 ISBN 0 11 082367 2
- 4 *Guidance on the interpretation of major accidents to the environment for the purposes of the COMAH Regulations* The Stationery Office 1999 ISBN 0 11 753501 X
- 5 *COMAH guidance on intermediate temporary storage (ITS)* (web-only version available on HSE website: www.hse.gov.uk/foi/internalops/hid/spc/spcenf02.pdf)
- 6 *Reducing error and influencing behaviour* HSG48 (Second edition) HSE Books 1999 ISBN 0 7176 2452 8
- 7 *Major accident prevention policies for lower-tier COMAH establishments* Chemical Information Sheet CHIS3 HSE Books 1999 (web-only version available on HSE website www.hse.gov.uk/pubns/comahind.htm)
- 8 *Preparing safety reports: Control of Major Accident Hazards Regulations 1999 (COMAH)* HSG190 HSE Books 1999 ISBN 0 7176 1687 8
- 9 *Review and revision of COMAH safety reports: Guidance for operators from the competent authority* (web-only version available on HSE website: www.hse.gov.uk/comah/opguidance/opguidance.pdf)
- 10 *Emergency response and recovery* Central Office of Information 2005 (available from Emergency Planning College, Tel 01347 825007/825016; e-mail epc.library@cabinet-office.x.gsi.gov.uk and at www.ukresilience.info/contingencies/dwd/)
- 11 *Dealing with disasters together* (Second edition) Scottish Executive Office 1998 (available free from the Civil Contingencies Division of the Scottish Executive Tel 0131 244 2184 or the Scottish Executive website: www.scotland.gov.uk)
- 12 *Charging for COMAH activities: A guide* (web-only version available from HSE website: www.hse.gov.uk/charging)
- 13 *Successful health and safety management* (Second edition) HSG65 HSE Books 1997 ISBN 0 7176 1276 7
- 14 *Seveso II, Article 9(6): Explanations and guidelines for the application of the dispensation rule of Article 9, paragraph 6 of Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances* Report EUR 18124 2000 ISBN 92 828 5900 2 (available from the Joint Research Centre of the EU Commission, Italy, Tel +39 0332 789111, Fax +39 0332 789001, Website www.jrc.cec.eu.int)

Further reading

CHIP

The idiot's guide to CHIP 3: Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 Leaflet INDG350 HSE Books 2002 (single copy free or priced packs of 5 ISBN 0 7176 2333 5)

CHIP for everyone HSG228 HSE Books 2002 ISBN 0 7176 2370 X

Approved classification and labelling guide. Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. Guidance on Regulations L131 (Fifth edition) HSE Books 2002 ISBN 0 7176 2369 6

Approved supply list (eighth edition). Information approved for the classification and labelling of substances and preparations dangerous for supply. Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (as amended) L142 HSE Books 2005 ISBN 0 7176 6138 5

EC publications

The European Commission has also produced guidance on several aspects of the Seveso II regime (available from the Joint Research Centre of the EU Commission, Italy, Tel +39 0332 789111, Fax +39 0332 789001, Website www.jrc.cec.eu.int):

Explanations and guidelines on Article 9(6) Report EUR 18124
2000 ISBN 92 828 5900 2

Guidance on inspections as required by Article 18 Report EUR 18692
2000 ISBN 92 828 5898 7

Guidance on land use planning Report EUR 18695 2000 ISBN 92 828 5899 5

Information on the Internet

Information on various aspects of the COMAH regime can be found on the following websites:

HSE	www.hse.gov.uk/comah
Scottish Executive	www.scotland.gov.uk
Environment Agency	http://www.environment-agency.gov.uk (search for COMAH)
Scottish Environment Protection Agency	http://www.sepa.org.uk/guidance/comah/index.htm
European Commission (Major Accident Hazards Bureau)	mahbsrv.jrc.it mahbsrv.jrc.it/guidancedocs.html

Other sites with information related to major accidents

European Commission	europa.eu.int/comm/environment/seveso/index.htm
OECD	www.oecd.org/about/
United Nations	www.uneptie.org/pc/apell/home.html
Civil Contingencies Secretariat/ UK Resilience	www.ukresilience.info/home.htm

Further information

For information about health and safety ring HSE's Infoline Tel: 0845 345 0055
Fax: 0845 408 9566 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com or
write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

HSE priced and free publications can be viewed online or ordered from
www.hse.gov.uk or contact HSE Books, PO Box 1999, Sudbury, Suffolk
CO10 2WA Tel: 01787 881165 Fax: 01787 313995. HSE priced publications
are also available from bookshops.

The Stationery Office publications are available from The Stationery Office,
PO Box 29, Norwich NR3 1GN Tel: 0870 600 5522 Fax: 0870 600 5533
e-mail: customer.services@tso.co.uk Website: www.tso.co.uk
(They are also available from bookshops.) Statutory Instruments can be viewed free
of charge at www.opsi.gov.uk.