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The Control of Major Accident Hazards Regulations 2015

Guidance on Regulations



L111 (Third edition)
Published 2015

This guidance aims to help dutyholders comply with the Control of Major Accident Hazards (COMAH) Regulations 2015. The purpose of the COMAH Regulations is to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any accidents which do occur.

The COMAH Regulations 2015 implement the majority of the Seveso III Directive (2012/18/EU) in Great Britain (Northern Ireland produces its own regulations). The land-use planning requirements from the Directive are implemented through planning legislation.

These Regulations replace the 1999 Regulations and are in force from 1 June 2015.

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Guidance

This guidance is issued by the Health and Safety Executive on behalf of the competent authority. Following the guidance is not compulsory, unless specifically stated, 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.

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Introduction

About this guidance

1 This guidance aims to help dutyholders comply with the Control of Major Accident Hazards (COMAH) Regulations 2015. The purpose of the COMAH Regulations is to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any accidents which do occur.

2 The COMAH Regulations 2015 implement the majority of the Seveso III Directive (2012/18/EU) in Great Britain (Northern Ireland produces its own regulations). The land-use planning requirements from the Directive are implemented through planning legislation. These Regulations replace the 1999 Regulations and are in force from 1 June 2015.

Who should read this guidance?

3 Operators, emergency planners and other COMAH dutyholders should find this guidance useful. The text makes clear who the guidance is intended for and the dutyholder is then referred to as 'you'.

Scope

4 An establishment having any dangerous 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 upper tier. The two flow charts in Appendix 1 give guidance on determining whether the Regulations apply to you, at what tier and to which type of establishment they apply.

5 The Regulations define dangerous substances using the Classification, Labelling and Packaging Regulation 2008 (CLP). CLP is based on a global classification system for chemicals. CLP is amended from time to time in line with technical and scientific development. These amendments are known as 'Adaptations to Technical Progress', or ATPs, and are usually published at least annually. Therefore, any reference to CLP in the COMAH Regulations will always be to the latest version.

6 ATPs can affect the application of the COMAH Regulations. For more information on CLP see Further reading.

7 Schedule 1 of the Regulations contains rules for aggregating sub-threshold quantities of dangerous substances in the same or similar generic categories. It also sets out the rule 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 rules work are given in Appendix 2.

8 Even if there are no threshold quantities of dangerous substances present at a site, it may still be subject to the Regulations, eg if specified dangerous substances could be produced in threshold quantities as a result of loss of control of a process – this is what happened in the accident at Seveso, referred to in Background, below.

9 The Seveso III Directive includes a provision for the European Commission to assess whether it is impossible in practice for a particular dangerous substance to create a major accident. The European Commission is developing an assessment methodology with member states which could have an effect on the scope of the Directive. The use of this methodology would have to be taken forward in the form of a new European law. Any operator wishing to put forward a case for a particular dangerous substance should refer to HSE's website (www.hse.gov.uk) and discuss the process to be used with the competent authority.

Timescales

10 Appendix 3 summarises the COMAH duties on operators from 1 June 2015, including timescales for complying with requirements on major accident prevention policies, notifications, safety reports, emergency plans and public information.

Background

11 Major accidents may give rise to serious injury to people or serious damage to the environment, both close to and further away from the site of the accident. 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 Union, led the European Commission to propose a Directive on the control of major industrial accident hazards.

12 The original Seveso Directive comprised a three-part strategy that is still relevant:

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

13 There have been a series of amendments to and new versions of the Directive. These updates often reflect lessons learned from major accidents in Europe and beyond. The COMAH Regulations 1999 brought protection of the environment into scope in addition to the protection of people.

14 The Seveso III Directive was adopted on 4 July 2012. The main reason for the new Directive was the change in classification system for dangerous substances to that established in the CLP Regulation which came fully into force on 1 June 2015.

What are the differences between this guidance and the previous edition?

15 Although many duties are familiar from the 1999 Regulations, the 2015 Regulations contain some new or changed duties including:

- (a) The list of substances covered by the Regulations has been updated and aligned to the CLP Regulation.
- (b) Some definitions have been changed.
- (c) There are transition arrangements for safety reports.
- (d) For emergency planning, there is a new requirement for co-operation by designated authorities in tests of the external emergency plan.
- (e) There are stronger requirements for public information, including a duty for lower-tier establishments to provide public information. There are provisions for electronic access to up-to-date public information.
- (f) The domino effects duty is broader.
- (g) Stronger requirements for the competent authority on inspection.
- (h) Local authorities must now inform people likely to be affected following a major accident.

Presentation

16 The text of the Regulations is presented in *italics* and the accompanying guidance in normal type. Coloured borders also indicate each section.

17 These 2015 Regulations follow the order of the Seveso III Directive, so those familiar with the previous Regulations will notice some changes.

18 Guidance on the requirements can be found under the relevant regulation.

19 The guidance contains a number of references to 'safety'. The term 'safety' should be interpreted to include matters affecting health, safety or the environment (except where the word 'safety' is used in references to other legislation). For example, 'safety-critical components' should be interpreted to include 'components critical for environmental protection'.

Note

Amendment of the Control of Major Accident Hazards Regulations 2015 (from 13 July 2015)

In regulation 2(1), in the definition of "local authority", for paragraph (b)(v) substitute – "(v) an area in Scotland, the council for the local government area;".

PART 1 Introduction

Regulation 1 Citation, commencement and extent

Regulation 1

(1) *These Regulations may be cited as the Control of Major Accident Hazards Regulations 2015 and come into force on 1st June 2015.*

(2) *These Regulations extend to Great Britain.*

Regulation 2 Interpretation

Regulation 2

(1) *In these Regulations –*

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

“the 1999 Regulations” means the Control of Major Accident Hazards Regulations 1999;

“the 2010 Regulations” means the Environmental Permitting (England and Wales) Regulations 2010;

“the 2012 Regulations” means the Pollution Prevention and Control (Scotland) Regulations 2012;

“the appropriate agency” in relation to an establishment in –

- (a) England, means the Environment Agency;*
- (b) Scotland, means the Scottish Environment Protection Agency; and*
- (c) Wales, means the Natural Resources Body for Wales;*

“authorised person” means a person authorised by the appropriate agency under section 108 of the Environment Act 1995;

“CAS number” is the number assigned to a substance by the Chemical Abstracts Service;

“the CLP Regulation” means Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No. 1907/2006, of which Annex 1, Part 1.0 and 1.1, Parts 2 to 4 and, Annex VI, Part 3 Table 3.1 are to be read as amended from time to time;

“competent authority” has the meaning given in regulation 4;

“dangerous substance” means (subject to regulation 3(2)(b) and (c)) a substance or mixture –

Regulation 2	<p>(a) <i>listed in column 1 of Part 2 of Schedule 1; or</i></p> <p>(b) <i>in a category listed in column 1 of Part 1 of Schedule 1,</i></p> <p><i>including in the form of a raw material, product, by-product, residue or intermediate;</i></p>
Guidance 2	<p>20 A substance is dangerous for the purposes of these Regulations if it falls within a generic category specified in Part 1 of Schedule 1 or is named in Part 2 of Schedule 1. The generic categories in Part 1 are based on those defined in the CLP Regulation 2008 which is referred to in the Seveso III Directive.</p> <p>21 A dangerous substance is included in the form of 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, for example, establishments which use liquefied petroleum gas (LPG) as a fuel or which store waste materials containing dangerous substances.</p>
Regulation 2	<p><i>"designated authorities" means –</i></p> <p>(a) <i>in England and Wales, those persons or bodies specified in Part 1 of Schedule 1 to the Civil Contingencies Act 2004;</i></p> <p>(b) <i>in Scotland, those persons or bodies specified in Part 2 of Schedule 1 to that Act;</i></p>
Guidance 2	<p>22 Designated authorities are Category 1 'core' responders in the Civil Contingencies Act 2004¹ and include:</p> <p>(a) emergency services:</p> <ul style="list-style-type: none"> (i) police forces; (ii) British Transport Police; (iii) fire authorities; (iv) ambulance services; (v) Marine and Coastguard Agency; <p>(b) local authorities: all principal local authorities;</p> <p>(c) health bodies, including:</p> <ul style="list-style-type: none"> (i) acute service providers; (ii) ambulance service providers; (iii) port health authorities; (iv) public health agencies; (v) NHS England; <p>(d) government agencies:</p> <ul style="list-style-type: none"> (i) Environment Agency; (ii) Scottish Environment Protection Agency; (iii) Natural Resources Wales.
Regulation 2	<p><i>"the Directive" means Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/98/EC;</i></p>
Guidance 2	<p>23 This is referred to as the Seveso III Directive.</p>
Regulation 2	<p><i>"domino effects" is to be construed in accordance with regulation 24(2);</i></p> <p><i>"domino groups" is to be construed in accordance with regulation 24(1) and a reference to "domino group" is to be read accordingly;</i></p>

Regulation 2

“emergency services” means –

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

“establishment” means the whole location under the control of an operator where a dangerous substance is present in one or more installations, including common or related infrastructures or activities, in a quantity equal to or in excess of the quantity listed in the entry for that substance in column 2 of Part 1 or in column 2 of Part 2 of Schedule 1, where applicable using the rule laid down in note 4 in Part 3 of that Schedule;

Guidance 2

24 There are a number of types of establishment in these Regulations. Appendix 1 includes two flow charts to help determine when the Regulations apply, at what tier and the type of establishment.

25 The concept of ‘establishment’ is important. It means any installation(s) which is within an area of land under the control of the same person or body. Where this area of land is cut across by, for example, a road, railway or canal, that area will still remain as one establishment. However, 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.

26 In distinguishing one establishment from another it is essential to establish exactly who 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.

27 An operator must consider all activities which might be relevant to major accidents within the establishment. This includes not just the installations that handle dangerous substances but also the related infrastructure such as pipework and activities such as traffic movement which could be relevant to a major accident.

Regulation 2

“the Executive” means the Health and Safety Executive;

“existing establishment” has the meaning given in paragraph (2);

“external emergency plan” is to be construed in accordance with regulation 13(1);

“full address” means the full postal address (including postcode) and an address for contact by electronic means;

Guidance 2

28 The address for contact by electronic means is an email address.

Regulation 2

“hazard” means the intrinsic property of a dangerous substance or physical situation, with a potential for creating damage to human health or the environment;

“health authority” means –

- (a) *in relation to England, a clinical commissioning group established under section 14D of the National Health Service Act 2006;*
- (b) *in relation to Wales, a Local Health Board established under section 11 of the National Health Service (Wales) Act 2006; and*
- (c) *in relation to Scotland, a Health Board established under section 2 of the*

Regulation 2

National Health Service (Scotland) Act 1978;

“inspection” means all actions, including –

- (a) site visits;*
- (b) checks of internal measures, systems and reports and follow up documents; and*
- (c) any necessary follow up,*

undertaken by or on behalf of the competent authority to check and promote compliance of establishments with the requirements of these Regulations;

Guidance 2

29 The definition of inspection is broad and includes all regulatory activity to check and promote compliance with these Regulations.

Regulation 2

“inspector” means a person appointed under section 19 of the 1974 Act by or on behalf of –

- (a) the Executive; or*
- (b) the ONR;*

“installation” means a technical unit within an establishment, whether at or below ground level, in which dangerous substances are produced, used, handled or stored and includes all the equipment, structures, pipelines, pipework, machinery, tools, private railway sidings, docks, unloading quays serving the installation, jetties, warehouses or similar structures, floating or otherwise, necessary for the operation of that installation;

Guidance 2

30 Pipelines and pipework are included in the definition. The dangerous substances inventory of pipelines and pipework within the boundary of the establishment should be included when determining application of the Regulations. An appropriate calculation must be made. Only the inventory of pipelines with a connection to the establishment needs to be considered; the inventory of any pipelines that incidentally pass through an establishment – either above or below ground – should not be included as these pipelines are not necessary for the operation of the establishment.

31 Dangerous substances in all pipelines and pipework (including any pipelines that incidentally pass through the establishment) must be taken into account when identifying possible major accident scenarios.

Regulation 2

“internal emergency plan” is to be construed in accordance with regulation 12(1);

“local authority” means –

- (a) for the purposes of regulation 18 and regulation 26, in relation to –*
 - (i) the City of London, the Common Council of 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;*
 - (vi) an area in Wales, the county council or the county borough council for that area;*

Regulation 2

- (b) otherwise, 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;

* Amendment from 13 July 2015 by COMAH (Amendments) Regulations 2015, SI 2015/483.

Guidance 2

32 There are two types of local authority in these Regulations:

- (a) those with duties in connection with the preparation, review, revision and testing of external emergency plans. The dutyholder varies depending on the local government structure in different parts of Great Britain. In metropolitan areas in England, the local authority is a fire authority for this purpose. In other areas, councils perform this role;
- (b) those councils that are consulted during the production of operators' safety information for the public – regulation 18 – and involved in the dissemination of information after a major accident – regulation 26.

Regulation 2

"lower tier establishment" means an establishment where a dangerous substance is present in a quantity equal to or in excess of the quantity listed in the entry for that substance in column 2 of Part 1 or in column 2 of Part 2 of Schedule 1, but less than that listed in the entry for that substance in column 3 of Part 1 or in column 3 of Part 2 of Schedule 1, where applicable using the rule laid down in note 4 of Part 3 of that Schedule;

"major accident" means an occurrence such as a major emission, fire, or explosion resulting from uncontrolled developments in the course of the operation of any establishment to which these Regulations apply, and leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, and involving one or more dangerous substances;

Guidance 2

33 The terms 'major accident', 'major accident hazard' and 'major accident scenario' are used frequently in this guidance. A 'major accident' is a defined event (further guidance follows), a 'major accident hazard' concerns the potential for a major accident and a 'major accident scenario' addresses the circumstances that could lead to a major accident happening.

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

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

Guidance

2

Uncontrolled developments

35 An uncontrolled development may be due to internal or external factors which the operator is unable to control or has lost the opportunity or ability to control. External factors could, for example, be adverse weather conditions such as lightning or flooding. Uncontrolled developments originating on site would be events which escalate so that they are outside the normal operating conditions over which control may be exercised.

Serious danger

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

37 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.

38 Serious danger to human health means a risk of death, physical injury or harm to health, eg:

- (a) a substantial number requiring medical attention;
- (b) some people seriously injured, requiring prolonged treatment.

39 Any incident resulting in serious danger will have the potential to cause death but it will not necessarily do so. The effect may 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.

Major accident to the environment

40 An incident will also be a major accident if it results in serious danger, whether realised or potential, to the natural or built environment. The effect may be immediate or delayed and may sometimes be relatively long-lasting but not necessarily irreversible. Operators should 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 built environment. Details of the surroundings will form part of the safety report for upper-tier establishments.

41 In 2013, the Chemicals and Downstream Oil Industries Forum developed resources and guidance including *Environmental risk tolerability for COMAH establishments*,² which provides a framework for developing major accident scenarios and assessing potential major accidents to the environment. It provides thresholds of harm considered to be serious, based on extent, severity and duration.

42 Serious danger to the environment includes accidents with the potential to result in:

Guidance 2

- (a) the death or adverse effects on local populations of species or organisms, with lower thresholds for high-value or protected species;
- (b) 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) damage to widespread habitats;
- (f) damage to the marine or aquatic environment.

Involves one or more dangerous substances

43 It is not necessary for the dangerous substance(s) to cause serious danger but it must play a part in the chain of events leading to the danger. The substance that ultimately causes the harm may not be a dangerous substance in COMAH terms, but such substances can still cause serious danger to the environment, for example through releases into water. An example is an explosion or fire involving a dangerous substance that leads to vessel failure and the release of a non-COMAH substance that could then cause harm.

Regulation 2

"major accident prevention policy" is to be construed in accordance with regulation 7;

"mixture" means a mixture or solution composed of two or more substances;

Guidance 2

44 A mixture can include a single substance in solution with another; further guidance on mixtures and their classification is available in European Chemicals Agency (ECHA) guidance (see Further reading).

Regulation 2

"neighbouring establishment" means an establishment that is located in such proximity to another establishment so as to increase the risk or consequences of a major accident;

"new establishment" means –

- (a) *an establishment that is constructed or enters into operation on or after 1st June 2015; or*
- (b) *a site of operation which becomes an establishment to which these Regulations apply on or after 1st June 2015 due to an increase or other change in its inventory of dangerous substances;*
- (c) *a lower tier establishment that becomes an upper tier establishment or vice versa, on or after that date due to any modification to any of its installations or activities which results in a change in its inventory of dangerous substances;*

Guidance 2

45 New establishments are included in Appendix 1. They are created from a change initiated by an operator, as opposed to a substance classification change.

Regulation 2

"nuclear establishment" means an establishment which is or is wholly or partly within –

- (a) *a GB nuclear site (within the meaning given in section 68 of the Energy Act 2013); or*
- (b) *a new nuclear build site (within the meaning given in regulation 2A of the Health and Safety (Enforcing Authority) Regulations 1998);*

"the ONR" means the Office for Nuclear Regulation;

Regulation 2	<p><i>“operator” means the person who is in control of the operation of an establishment, or in relation to an establishment 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 on by that person has commissioned its design and construction;</i></p>
Guidance 2	<p>46 The main duties in the Regulations are on operators. 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.</p> <p>47 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 notification and submission of safety reports before construction.</p>
Regulation 2	<p><i>“other establishment” means –</i></p> <ul style="list-style-type: none"> (a) <i>a site of operation that becomes an establishment to which these Regulations apply on or after 1st June 2015; or</i> (b) <i>a lower tier establishment that becomes an upper tier establishment or vice versa, on or after that date,</i> <p><i>for reasons other than those mentioned in paragraph (b) or (c) (as the case may be) of the definition of “new establishment”;</i></p>
Guidance 2	<p>48 Other establishments are included in Appendix 1. They are created as a result of a substance classification change, originating from alignment to CLP or self-classification.</p>
Regulation 2	<p><i>“pipelines” means pipelines to which the Pipelines Safety Regulations 1996 apply;</i></p> <p><i>“the public” means one or more persons and, includes their associations, organisations or groups;</i></p> <p><i>“presence of a dangerous substance” means the actual or anticipated presence of a dangerous substance in an establishment, or of a dangerous substance which it is reasonable to foresee may be generated during loss of control of the processes, including storage activities, in any installation within the establishment, in a quantity equal to or in excess of the qualifying quantity listed in the entry for that substance in column 2 of Part 1 or in column 2 of Part 2 of Schedule 1, and “where a dangerous substance is present” is to be construed accordingly;</i></p>
Guidance 2	<p>49 Operators should take account of the presence or possible presence of dangerous substances at their establishment in determining whether the Regulations apply to their activities and, if so, at which tier. The inclusion of substances ‘generated during the loss of control of a process, including storage activities’, may bring within the scope of the Regulations some sites which would otherwise be outside scope or move establishments that may previously have been within the threshold of lower tier into upper tier.</p> <p>50 Presence of dangerous substances can be split into two categories: firstly, substances that are or could be present as part of normal activity; and secondly, substances that could be produced during loss of control of a process. The regulation uses the term ‘reasonable to foresee’ which refers to being able to predict, within reason, that a scenario is possible. For example, it may not be reasonable to foresee that two incompatible substances stored in separate areas within an establishment could come into contact leading to the generation of an unwanted third substance.</p>

Guidance

2

51 Where a substance has multiple properties, ie toxic and environmental hazards, the appropriate aggregation calculation should be performed for each group. There is further guidance on applying the aggregation rule in note 4 to Schedule 1.

52 The requirement to consider substances that could be produced during loss of control of a process 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 substances went wrong and generated a third chemical, a dioxin named TCDD, resulting in a major accident.

Actual and anticipated presence of dangerous substances

53 When considering the maximum quantity of dangerous substances that could be present during normal activities, operators should consider inventory variations which may occur because of factors such as seasonal demand, fluctuations in business activity and deliveries.

54 Operators who face frequent inventory variations should plan on the basis of maximum quantities of each generic category of substance they will have on site, together with the likely maximum quantities of named substances handled. They should consider whether these maximum quantities, appropriately aggregated, bring them within scope and, if so, at which tier.

55 It may be appropriate for operators to relate presence either to quantities of dangerous substances which they have consent to hold under the planning legislation, or to the quantity which is manufactured or stored in accordance with a licence granted under the Explosives Regulations 2014.³

Dangerous substances that may be generated through loss of control

56 Operators should consider substances which may be generated during a loss of control of a process, including storage activities as defined in this regulation. Operators should consider all types of scenarios, including during process and storage, that it is reasonable to foresee may lead to dangerous substances being generated.

57 The definition is not intended to bring into scope premises which do not manufacture, use or store dangerous substances, solely because of dangerous substances being generated in an accident. For example, a warehouse holding non-dangerous substances is not in scope of the Regulations solely because a fire might generate dangerous substances above threshold quantities.

58 When considering potential generation of third substances during loss of control, operators should ensure that substances are not double counted. Operators are encouraged to speak to the competent authority for advice in these circumstances.

Process scenario

59 An example of a process-type scenario is an intentional reaction running away or being performed incorrectly and leading to a generation and release of significantly greater quantities than would be part of normal activities. In this instance, the operator would be required to consider what the maximum quantity of

Guidance 2

a dangerous substance that could be produced would be and if that exceeded either threshold in Schedule 1. An example of this type of scenario is sodium chlorite being mixed with hydrochloric acid to produce chlorine dioxide for water treatment; an accident could lead to over production or an accidental release of chlorine dioxide.

Storage activity scenario

60 An example of a storage-type scenario is a bulk storage tank being filled with the wrong substance, leading to a reaction with the contents of the tank and generation of an unintended dangerous substance. In storage scenarios, the maximum quantity of a dangerous substance that could be produced needs to be determined but consideration should be given to what is reasonable to foresee. For example, a single tank in a tank farm could be filled with an incorrect substance; however, it may not be reasonable to foresee that the same error could happen to multiple unconnected tanks.

61 Existing risk assessments produced under health and safety or environmental legislation could be used as a starting point in considering scenarios, as these should indicate what substances are likely to be produced during an accident. If these include 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.

62 Where the presence of a dangerous substance at an establishment is temporary, whether or not it should be included in the establishment's inventory, shall depend on the extent to which the presence is 'reasonable to foresee'. Operators are encouraged to speak to the competent authority for advice in these circumstances.

Regulation 2

"risk" means the likelihood of a specific effect occurring within a specified period or in specified circumstances;

"safety report" is to be construed in accordance with regulation 8;

"storage" means the presence of a quantity of dangerous substances for the purposes of warehousing, depositing in safe custody or keeping in stock;

Guidance 2

63 'Storage' is defined broadly to include warehousing, substances kept in safe custody for onward distribution, kept in stock for use on site or elsewhere in the process, or storage of waste materials.

Regulation 2

"upper tier establishment" means an establishment where a dangerous substance is present in a quantity equal to or in excess of the quantity listed in the entry for that substance in column 3 of Part 1 or in column 3 of Part 2 of Schedule 1, where applicable using the rule laid down in note 4 of Part 3 of that Schedule.

Guidance 2

64 An upper-tier establishment was previously called top tier in the guidance to the 1999 COMAH Regulations.

Regulation 2

(2) For the purposes of these Regulations "existing establishment" means an establishment –

- (a) where on 31st May 2015 a dangerous substance or category of substance listed in column 1 of Parts 2 or 3 of Schedule 1 to the 1999 Regulations was present in a quantity equal to or in excess of the quantity listed in the entry for that substance in column 2 of those Parts, but less than that listed in the entry for that substance in column 3 of those Parts, where applicable using the rule laid down in note 4 of Part 3

Regulation 2

- of that Schedule, and which on 1st June 2015 was a lower tier establishment; or*
- (b) *where on 31st May 2015 a dangerous substance or category of substance listed in column 1 of Parts 2 or 3 of Schedule 1 to the 1999 Regulations was present in a quantity equal to or in excess of the quantity listed in the entry for that substance in column 3 of those Parts, where applicable using the rule laid down in note 4 of Part 3 of that Schedule, and which on 1st June 2015 was an upper tier establishment,*

other than one which has ceased to be an existing establishment.

Guidance 2

65 Existing establishments are included in Appendix 1.

Regulation 2

- (3) *For the purposes of paragraph (2) an establishment ceases to be an existing establishment –*
- (a) *within paragraph (a) of the definition of that term if, on or after 1st June 2015, the establishment becomes an upper tier establishment;*
- (b) *within paragraph (b) of the definition of that term if, on or after 1st June 2015, the establishment becomes a lower tier establishment.*
- (4) *Where a new establishment becomes subject to these Regulations due to an increase, decrease or other change in its inventory of dangerous substances, any reference in these Regulations to the start of operation of the establishment, is a reference to the time when the establishment first becomes subject to the Regulations by reason of that increase, decrease or change.*
- (5) *The columns in Parts 1 and 2 of Schedule 1 are to be applied subject to the notes in Part 3 of that Schedule.*
- (6) *Where a substance listed in column 1 of Part 2 of Schedule 1 is also covered by a category in column 1 of Part 1 of that Schedule, the quantities set out in columns 2 and 3 of Part 2 must be used.*
- (7) *A reference in these Regulations to “writing” includes writing which is communicated or kept in electronic form and which can be printed.*

Regulation 3 Application and exceptions

Regulation 3

- (1) *These Regulations apply to any establishment which is either a lower tier establishment or an upper tier establishment.*

Guidance 3

66 Once it has been determined 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.

67 These Regulations do not apply offshore. They do not apply to transport of dangerous substances outside establishments. Separate legislation covers transport or carriage of dangerous substances (see Further reading).

Regulation 3

- (2) *These Regulations do not apply to any of the following –*
- (a) *an establishment which is under the control of –*
- (i) *the Secretary of State for the purposes of the Ministry of Defence;*

Regulation

3

- (ii) *a headquarters or organisation designated for the purposes of the International Headquarters and Defence Organisations Act 1964 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) *hazards created by ionising radiation originating from substances;*
- (c) *substances which create a hazard from ionising radiation if present on a nuclear establishment;*
- (d) *the exploitation, namely the exploration, extraction and processing, of minerals in mines and quarries, including by means of boreholes, except any of the following which involve dangerous substances –*
 - (i) *onshore underground gas storage in natural strata, aquifers, salt cavities and disused mines;*
 - (ii) *chemical and thermal processing operations and storage related to those operations;*
 - (iii) *operational tailings disposal facilities, including tailing ponds or dams;*
- (e) *the offshore exploration and exploitation of minerals, including hydrocarbons;*
- (f) *the storage of gas at underground offshore sites including dedicated storage sites and sites where exploration and exploitation of minerals, including hydrocarbons, are also carried out;*
- (g) *waste landfill sites, including underground waste storage, except –*
 - (i) *any of the following that involve dangerous substances –*
 - (aa) *chemical and thermal processing operations and storage related to those operations; or*
 - (bb) *operational tailings disposal facilities, including tailing ponds or dams;*
 - (ii) *sites used for the storage of metallic mercury pursuant to Article 3(1)(b) of Regulation (EC) No. 1102/2008 of the European Parliament and of the Council on the banning of exports of metallic mercury and certain compounds and mixtures and the safe storage of metallic mercury.*

Guidance

3

68 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).

69 For non-nuclear establishments, substances emitting ionising radiation are within scope of the COMAH Regulations if they have other hazardous properties that meet the definition of 'dangerous substance'.

70 Substances which emit ionising radiation are outside the scope of the COMAH Regulations if they are within a nuclear establishment. This is because the hazards are already addressed by stringent nuclear legislation which ensures at least an equivalent level of safety. Dangerous substances which do not emit ionising radiation would bring such an establishment into the scope of COMAH if the quantity met or exceeded the appropriate threshold.

71 Onshore mineral exploitation is excluded from the scope of the Regulations. This includes oil and gas drilling and extraction facilities, as well as traditional mining

Guidance

3

industries. Gas produced from hydraulic fracturing activities, known as 'fracking', would typically be out of the scope of the Regulations unless 50 tonnes or more of methane gas are stored on site. It is unlikely that the chemicals in hydraulic fracturing fluids will meet or exceed the relevant thresholds for dangerous substances, but this should be checked.

72 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) onshore oil and gas reception facilities.

73 Only landfill sites are excluded by regulation 3(2)(g). Waste incineration sites will be within scope if they meet the qualifying criteria. If a landfill 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.

74 A waste landfill site will be within the scope if metallic mercury is stored there under the cited regulation.

Regulation 4 The competent authority

Regulation

4

For the purposes of these Regulations the competent authority is –

- (a) *in relation to a nuclear establishment, the ONR and the appropriate agency acting jointly;*
- (b) *otherwise, the Executive and the appropriate agency acting jointly.*

Guidance

4

75 A key feature of the COMAH Regulations is that they are enforced by a competent authority. The competent authority for an establishment is HSE, or the Office for Nuclear Regulation (ONR) for nuclear establishments, together with the appropriate agency. In England the competent authority is HSE or ONR and the Environment Agency (EA); in Scotland it is HSE or ONR and the Scottish Environment Protection Agency (SEPA); and in Wales it is HSE or ONR and Natural Resources Body for Wales (NRW).

76 Throughout this guidance, HSE or ONR, and the appropriate agency are referred to as the competent authority.

77 A memorandum of understanding, available on the HSE website, sets out how the organisations work together. 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) activities of HSE or ONR and the environment 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 reduced;
- (d) HSE, ONR and the environment agencies will collaborate on issues of common interest, so avoiding duplicating activity for themselves and for operators.

Guidance

4

78 Some of the establishments regulated under the COMAH Regulations are also regulated by the environment agencies under the Environmental Permitting (England and Wales) Regulations 2010 (EPR) or the Pollution Prevention and Control (Scotland) Regulations 2012 (PPC). EPR and PPC include a specific duty to prevent and mitigate accidents to the environment. The COMAH Regulations address major accidents. Overlap is avoided by operation of the memorandum of understanding.

PART 2 General duties of operators of all establishments

Regulation 5 General duties of operators

Regulation 5

(1) Every operator must take all measures necessary to prevent major accidents and to limit their consequences for human health and the environment.

Guidance 5

79 This is a general duty on all operators and underpins the Regulations. It sets a high standard that applies to all establishments.

80 In judging how this duty should be complied with, the competent authority recognises that risk cannot be completely eliminated and there should be some proportionality between the risk and the measures taken to control the risk. The competent authority will make a judgement about whether a preventive or mitigation measure is necessary in relation to the major hazard and the risk the measure addresses.

81 Prevention should be considered in a hierarchy based on the principles of reducing risk to a level as low as reasonably practicable (ALARP). The ideal should always be to avoid a hazard altogether. This is known as inherent safety and the principles apply to human and environmental hazards.

82 Where reliance is placed on people as part of the necessary measures, human factor issues should be addressed with the same rigour as technical and engineering measures (details of HSE guidance on human factors are in Further reading).

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

84 Relevant good practice should be adopted as a minimum and you should then firstly consider: 'What more can I do to reduce the risks?' And, secondly, explain: 'Why have I not done it?' Good practice represents a consensus between regulators, technical experts, dutyholders 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. See the HSE website for guidance on ALARP and good practice.

85 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), the International Electrotechnical Commission (IEC), the Engineering Equipment and Materials Users Association (EEMUA), the American Society of Mechanical Engineers (ASME), the American Petroleum Institute (API) and HSE.

Guidance

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86 In most cases, good practice will mean adopting sound engineering design principles, along with good operating and maintenance practices. In some cases, however, this will not be sufficient and you may need to adopt best practice or state of the art technology. For example, the 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 area, or in an environmentally sensitive location, 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.

87 There will be some cases where good practice has not been established. Here, the first step 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 level of protection.

88 In cases where no suitable standard for good practice exists, you may have to employ a risk management approach to prevention and mitigation based on first principles. The competent authority will require this to be thoroughly justified.

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

- (a) identifying the hazards and risks;
- (b) using a hierarchical approach to examine 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);
- (d) implementing the decisions;
- (e) evaluating the effectiveness of the actions taken and revising where necessary.

90 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.

91 'All measures necessary' includes measures for mitigating the effects of major accidents. It includes planning for emergencies and remedial measures for restoration of the environment in the event of a major accident.

Regulation

5

(2) *Every operator must demonstrate to the competent authority that it has taken all measures necessary as specified in these Regulations.*

Guidance

5

92 You must not only take all the measures necessary but you must, when requested by the competent authority, demonstrate that you have done so. The findings of a risk assessment carried out to comply with regulation 5(1) (as well as the general regulation 3 requirement for risk assessment of the Management of Health and Safety at Work Regulations 1999 (MHSWR), and similar requirements in environmental legislation), together with the appropriate preventative and mitigation measures will usually provide sufficient evidence to demonstrate safe operation. The competent authority's programme of inspections will be designed to check this. For upper-tier operators this will mean ensuring that the operation of the plant reflects the information in the safety report. For all establishments, documents such as the major accident prevention policy (MAPP), operating instructions and training material will be necessary as part of the overall demonstration.

Regulation 5

(3) *Every operator must provide the competent authority with such assistance as is necessary to enable the competent authority to perform its functions under these Regulations.*

(4) *Without prejudice to the generality of paragraph (3), every operator must in particular provide such assistance as is necessary to the competent authority to enable it to –*

- (a) *carry out inspections and investigations; and*
- (b) *gather any necessary information,*

in connection with the performance of its functions under these Regulations.

Guidance 5

93 Regulation 5(3) and (4) outlines a general requirement for you to assist the competent authority. It may be used to obtain information before, during or after an inspection or investigation. It may also be used in relation to safety report submissions.

Regulation 6 Notifications

Guidance 6

94 The operator must notify the competent authority if the quantity of dangerous substances at its establishment will equal or exceed the thresholds in Schedule 1, Parts 1 and 2 of the COMAH Regulations. Your notification is essential to enable the competent authority to identify establishments, plan its assessment and inspection programmes in accordance with regulations 22 and 25 and ensure that you comply with your duties under these Regulations. Appendix 3 provides a summary of the COMAH duties on operators, including timescales for submission of notifications in various circumstances.

95 To comply with this duty you should send your notification to the competent authority in the prescribed format as described on the HSE website. If notifications have been prepared for other legislation and include descriptions required in the COMAH notification, they can be copied.

96 If you submit a safety report or a revised safety report before you submit a notification you must still send a separate notification to the competent authority. This is a change from the 1999 Regulations, which did not require a notification if a safety report had been submitted.

Regulation 6

(1) *Within a reasonable period of time prior to the start of construction of a new establishment the operator must send to the competent authority a notification containing the following information –*

- (a) *the name of the operator and the full address of the establishment;*
 - (b) *the registered place of business of the operator, with the full address;*
 - (c) *the name and position of the person in charge of the establishment;*
 - (d) *sufficient information to identify the dangerous substances and category of substances involved or likely to be present;*
 - (e) *the quantity and physical form of the dangerous substance or substances referred to in sub-paragraph (d);*
 - (f) *the activities or proposed activities of the installations or storage facilities;*
 - (g) *a description of the immediate environment of the establishment, and factors likely to cause a major accident or to aggravate the consequences of a major accident including, where available, details of –*
 - (i) *neighbouring establishments;*
 - (ii) *sites of operation that fall outside the scope of these Regulations;*
- and*

Regulation 6

- (iii) *areas and developments that could be the source of or increase the risk or consequences of a major accident and of domino effects.*

Guidance 6

Notification before start of construction

97 If your establishment has yet to be constructed and, when operational, will become subject to COMAH, you must send your notification within a reasonable time prior to start of construction. This would normally be three to four months. In the case where an establishment may be designed and constructed in less than three months, such as those handling LPG, other industrial gases and explosives, you should contact the competent authority to agree on the period of time.

98 The notification must include the full address where the dangerous substances which are subject to these Regulations are held. It must include the geographic and postal address if they are different. The information should also include a monitored email address for the company or a named person (for example, the site manager).

99 If the registered office of a company is different to the establishment address, the full address of the operator's registered place of business should be included.

100 The notification must provide enough information (including the substance name) to identify the dangerous substances, both those belonging to a category of dangerous substances (Part 1) and those named (Part 2) in Schedule 1. You should provide the name of the dangerous substance and its generic category.

101 Establishments which are brought into scope by the aggregation rule should include sufficient information to make clear the application of the aggregation rule. You must make clear which categories the named dangerous substances come under when an aggregation has been applied.

102 You should remember that the relevant quantity for the application of the Regulations is that which is present at the establishment or can be anticipated to be present (eg due to loss of control of processes, including storage). Therefore, the notification could usefully distinguish between actual threshold levels and anticipated presence of quantities of dangerous substances, where these are likely to be significant. For 'liquefied flammable gases' and 'petroleum products' (nos 18 and 34, respectively, in Part 2 of Schedule 1) the total quantity should be broken down to reflect the totals for each of the sub-sections.

103 In situations such as warehouses where there are frequent inventory fluctuations, and often not much notice of receipt of dangerous substances, or where there are complex inventories with large numbers of dangerous substances, it is acceptable to notify the maximum limits of generic categories of dangerous substances which you anticipate might be present.

104 The description of the activities can be brief, for example 'manufacture of ammonium nitrate fertilisers'. There is no need for a detailed description of an installation or storage facility such as would be required in a safety report. However, where there is more than one installation within an establishment each may need to be described individually. Where the COMAH activity is ancillary to the main one at an establishment the description should make that clear, for example 'storage of LPG as fuel for firing brick kilns'.

105 You must describe the surrounding environment and any features which could cause a major accident such as the establishment being located in a flood risk

Guidance

6

area. This part of the notification should include, where available, details (such as name, address, type of business) of neighbouring establishments and other sites that do not come under the COMAH regime which could initiate or aggravate a major accident, eg a scrap-yard storing tyres near the boundary with an establishment where flammable gas is stored close by, or licensed explosive sites. Further examples can be found in the competent authority Safety Report Assessment Manual (SRAM) (see Further reading).

106 You must also describe elements of the surrounding environment which could aggravate the consequences of a major accident. This should include both built and natural environments, eg:

- (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) environmentally important areas protected or designated under national, European or international law, eg Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas etc;
- (d) agriculture/food production;
- (e) location close to a river or groundwater body, especially where drinking water could be impacted.

107 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.

Regulation

6

(2) *Subject to paragraph (3), within a reasonable period of time prior to the start of operation of a new establishment the operator must send to the competent authority a notification containing the information specified in paragraph (1).*

(3) *The operator is not required to include in a notification under paragraph (2) any information included in a notification sent under paragraph (1), if that information is still valid.*

Guidance

6

Notification before start of operation

108 As an operator of a new establishment you must send a notification by the prescribed method within a reasonable time prior to start of operation, normally three to four months. In the case of those that are under construction, this means an update to the pre-construction notification under regulation 6(1), where information was unavailable or has changed. In this case, start of operation means the first time that dangerous substances are introduced into the establishment.

109 In the case of those establishments to which these Regulations now apply, or where an establishment changes tier due to modifications which result in a change to its inventory of dangerous substances, then a notification is required. In this case, start of operation means the point at which the inventory of dangerous substances first meets or changes the COMAH threshold limits.

110 The notification should also include the expected start date of the operation.

Regulation

6

(4) *The operator of an existing establishment must send to the competent authority a notification containing the information specified in paragraph (1) by 1st June 2016.*

Guidance

6

Notification by establishments already operating (existing establishments) on 1 June 2015

111 Existing establishment is defined by regulation 2 as one that was already operating on 1 June 2015 as a lower- or upper-tier establishment and has not changed tier.

112 All operators of existing establishments who had sent a notification to the competent authority under the 1999 Regulations must notify the competent authority under these Regulations by 1 June 2016. This is because of the change in classification from the Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP) to CLP. You will need to check your inventories and classify dangerous substances in accordance with CLP, using Schedule 1. Even when dangerous substances were named and had been notified previously, you still need to complete a new notification.

113 An 'existing establishment' may at some later date cease to fall within the COMAH regime or may move from upper tier to lower tier. If it moves between tiers, at that point it becomes a new establishment. If an establishment which has moved out of the COMAH regime but, at a later date, moves back in, or changes back to upper tier, it will be treated as a 'new' establishment. This means you will be required to fulfil the duties for a 'new' establishment, eg you will need to prepare a new MAPP, safety report and emergency plans to reflect the changed circumstances. A notification will be required to reflect the changed status of the establishment. The deadlines for submitting such information follow those for 'new establishments'.

Regulation

6

(5) *The operator of an other establishment must send to the competent authority a notification containing the information specified in paragraph (1) within one year beginning on the date on which the establishment, or site of operation, first becomes an other establishment.*

Guidance

6

Notification by 'other' establishments

114 An 'other' establishment is defined in regulation 2(1).

115 Although this regulation allows 'other' establishments to notify the competent authority within a year of coming into scope of the Regulations, you must ensure you fully comply with these Regulations from the date they first apply to your establishment.

Regulation

6

(6) *The operator of any establishment to which these Regulations apply must notify the competent authority in advance of –*

- (a) *a significant increase or decrease in the quantity of dangerous substances notified under this regulation;*
- (b) *a significant change in –*
 - (i) *the nature or physical form of the dangerous substances notified under this regulation; or*
 - (ii) *the processes employing them;*
- (c) *any modification of the establishment or an installation which could have significant consequences in terms of major accident hazards;*
- (d) *permanent closure of the establishment or its decommissioning; or*
- (e) *any change in the information referred to in paragraph (1)(a) to (c).*

Guidance 6

Changes to original notification

116 A key point in this regulation is that you must notify the competent authority 'in advance' of any changes, as described below.

117 You must notify the competent authority of a significant increase or decrease in the quantities of dangerous substances. This includes substances new to the establishment. The key test here is significance, which should be judged in the context of an increase or decrease in the likelihood or consequence of a major accident. 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 upper-tier thresholds would also be significant. In situations where a maximum of a generic category of substances is notified, you only need to notify increases above the maximum.

118 You should also notify if your establishment moves out of the COMAH regime, ie below the lower-tier threshold.

119 Notification is also required if the form or nature of the dangerous substances changes significantly. Examples which would require notification are a change of phase, eg from gaseous to liquid chlorine, or a change of state, eg from solid to powder.

120 Process changes which would require notification include significant increases or decreases in temperature, pressure or quantity of a dangerous substance, or different process technology. When making process changes you will need to consider notifying the competent authority.

121 Regulation 6(6)(c) requires notification in the event of any modification to an establishment or installation which could have significant consequences with respect to the prevention of major accidents. This is a widely drawn duty and you 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.

122 Any changes to other details previously submitted, ie change of operator, address, registered place of business or the name and position of the person in charge must also be notified.

Regulation 6

(7) *The competent authority must specify, in writing –*

- (a) *the form of notifications under this regulation; and*
- (b) *the means by which operators must send them to the competent authority.*

Guidance 6

123 The prescribed format is set out on HSE's COMAH webpages.

Regulation 7 Major accident prevention policies

Regulation 7

(1) *Subject to paragraph (4), every operator must prepare and retain a written major accident prevention policy.*

Guidance

7

124 Operators must have a major accident prevention policy (MAPP). The MAPP must be a written document. For upper-tier operators it must be included as a separate document in the safety report.

125 The MAPP is a key document. Its purpose is to provide a statement of the senior management's commitment to achieving high standards of major hazard control.

126 It is not necessary to submit a MAPP as a separate document to the competent authority, unless requested to do so. It may be requested before a visit, and it should be kept available for inspection. It may be used by an inspector or authorised person, alongside other information, to plan and structure inspections.

Regulation

7

(2) *A major accident prevention policy document must –*

- (a) *be designed to ensure a high level of protection of human health and the environment;*
- (b) *be proportionate to the major accident hazards;*
- (c) *set out the operator's overall aims and principles of action; and*
- (d) *set out the role and responsibility of management, and its commitment towards continuously improving the control of major accident hazards.*

Guidance

7

127 The MAPP must be proportionate in its scope and structure to the major accident hazards and lay down the framework for achieving adequate identification, prevention/control and mitigation of major accident hazards. It should describe management systems establishing an appropriate health and safety culture, backed by procedures and practices which take account of human factors. The MAPP must also demonstrate a commitment to continuous improvement in all aspects.

128 The MAPP must:

- (a) specifically address major accident hazards;
- (b) relate to protection of people and the environment.

129 The MAPP should set down what is to be achieved, with an indication of how this is to be done, but does not need to go into great detail. The detail should be contained in other documentation relating to the establishment, eg plant operating procedures, training records and job descriptions.

130 You have flexibility to format your documentation in a way which suits your own circumstances and which fits in with your policies for other health, safety and environmental legislation.

131 The MAPP should be made available to employees and others at the establishment, such as contractors.

Regulation

7

(3) *A major accident prevention policy must be prepared by the operator –*

- (a) *of a new establishment, within –*
 - (i) *a reasonable period of time prior to construction or operation of the establishment; or*
 - (ii) *a reasonable period of time prior to modifications leading to a change in the inventory of dangerous substances kept at the establishment;*
- (b) *of an existing establishment, by 1st June 2016;*
- (c) *of an other establishment, within one year beginning on the date on which the establishment, or site of operation, first becomes an other establishment.*

Regulation 7

(4) *Where –*

- (a) *the operator of an existing establishment had, immediately before 1st June 2015, prepared and retained a major accident prevention policy under regulation 5 of the 1999 Regulations, where;*
- (b) *the information contained within that policy remains materially unchanged; and*
- (c) *that policy complies with the requirements of these Regulations,*

the operator is not required to prepare a further major accident prevention policy under paragraph (1).

Guidance 7

132 A MAPP for a new establishment has to be prepared within a 'reasonable period of time' prior to start of construction or operation. What constitutes a 'reasonable period of time' varies, but it is normally between three and six months.

133 Operators of existing establishments need to check whether their MAPP needs updating and, if so, this should be done by 1 June 2016.

Regulation 7

(5) *Where an operator of an existing establishment is not required to prepare a major accident prevention policy by virtue of paragraph (4) –*

- (a) *the major accident prevention policy prepared by that operator under regulation 5 of the 1999 Regulations is to be treated as a major accident prevention policy prepared under this regulation; and*
- (b) *the policy must be retained by the operator in accordance with this regulation.*

(6) *An operator must review its major accident prevention policy –*

- (a) *in the event of –*
 - (i) *a significant increase or decrease in the quantity of dangerous substances notified under regulation 6; or*
 - (ii) *a significant change in –*
 - (aa) *the nature or physical form of the dangerous substances notified under regulation 6; or*
 - (bb) *the processes employing them,**which could have significant consequences in terms of major accident hazards; and*
- (b) *in any event no later than five years after the date on which the policy was last reviewed, and where necessary it must revise and retain the revised policy.*

Guidance 7

134 You must review your MAPP and, if necessary, revise it in the event of certain modifications. This is intended to deal with modifications which could have significant repercussions on major accident hazards and is not intended to deal with trivial changes. The guidance under regulation 10, relating to the revision of safety reports, gives examples of significant modifications. Review and revision must be done before the modification takes place.

135 Where a review is conducted after five years and no necessary revisions are identified, you should record this in order for you to demonstrate that you have fulfilled your obligations.

Regulation 7

(7) An operator must implement its major accident prevention policy by a safety management system.

Guidance 7

136 It is important that the policies described in the MAPP are put into operation through an SMS. The MAPP should set out the high-level policy. Below this, an SMS is required to implement the policy aims in the MAPP.

137 For a multi-site operator the MAPP might apply to several establishments, but the more detailed safety management system documents should be specific to a particular establishment.

Regulation 7

(8) A safety management system must –

- (a) satisfy the requirement in paragraph 1 of Schedule 2; and*
- (b) address the matters specified in paragraph 2 of that Schedule.*

Guidance 7

138 An SMS can be produced in a format that suits you provided the specific elements described in Schedule 2 are covered. You may consider adapting existing policy statements or material from existing documents to create a MAPP providing the information meets the requirements of this regulation and Schedule 2.

139 The SMS may be integrated within an overall management system which addresses other matters such as quality, therefore the approach to developing the MAPP and the SMS may vary greatly reflecting the overall management philosophy, system and culture of the organisation.

PART 3 Safety reports for upper-tier establishments

Regulation 8 Purposes of safety reports

Regulation

8

Every operator of an upper tier establishment must prepare a safety report for the purposes of –

- (a) 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 3;*
- (b) demonstrating that the major accident hazards and possible major accident scenarios in relation to the establishment have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for human health and the environment;*
- (c) demonstrating that adequate safety and reliability have been taken into account in the design, construction, operation and maintenance of any installation, storage facility, equipment and infrastructure connected with the establishment's operation which are linked to major accident hazards inside the establishment;*
- (d) demonstrating that an internal emergency plan has been prepared in accordance with regulation 12, which includes sufficient information to enable an external emergency plan to be prepared;*
- (e) providing sufficient information to the competent authority to enable decisions to be made regarding the siting of new activities or developments around establishments.*

Guidance

8

140 All operators of upper-tier establishments are required to prepare a safety report. Its purpose is to show that you have put in place arrangements for the control of major accident hazards and to limit the consequences to people and the environment of any that do occur.

141 Points (a) to (d) identify the elements that you must demonstrate in the safety report. The demonstration requires you to show compliance with the relevant parts of regulations 8, 9 and 10, and Schedules 2 and 3. You should do this by providing a level of detail in the safety report that is proportionate with the major hazard risk presented by your activities at the establishment. The level of detail necessary can be addressed during early discussion with the competent authority. Further information on the competent authority's view of how you can make the demonstration for safety reports can be found on the HSE website.

142 The primary audience for the safety report demonstration is both the operator and the competent authority. The discipline of having to prepare the safety report can reveal shortcomings in your preventive and mitigation measures.

143 Schedule 3 requires that the safety report must contain the SMS elements in Schedule 2.

Guidance

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144 For upper-tier establishments the MAPP is a specific document within the safety report and should be supported by details of how it is to be implemented in practice.

145 You must identify all major accident hazards and present a representative set of reasonably foreseeable major accident scenarios. Reference should be made to hazard identification and risk assessment techniques used. Your demonstration should provide a clear link between the various major accident scenarios identified and the measures which are in place to defend against them. The safety report should show how the necessary measures will prevent foreseeable failures which could lead to major accidents, and to limit the consequences of any that do occur. There should also be a clear link to the SMS.

146 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 inherent safety principles have been followed, such as reducing the inventory of dangerous substances;
- (b) showing that the containment for dangerous 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) 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) showing that construction is to the required specification and the design intent has been delivered;
- (e) showing that the plant is operated within the design specification;
- (f) justification and reasoning behind maintenance programmes, eg:
 - (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.

147 Regulations 12 and 13 require you to prepare internal emergency plans and to provide the necessary information for local authorities to prepare external emergency plans. You do not need to include the plans in the safety report, although you should refer to them and provide a summary of the key elements.

148 The information referred to in regulation 8(1)(e) is normally already provided within a safety report. If sufficient information is not available the competent authority may request further information.

Regulation 9 Requirements relating to the preparation of safety reports

Guidance

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149 The application of COMAH regulation 9 will vary, depending on whether the establishment is constructed after the coming into force of the Regulations (and will be upper tier); it is already an upper-tier establishment and will continue to be so; or because it is an establishment brought into upper tier for the first time by:

- (a) an increase in quantity of dangerous substance already present – an 'operator-initiated' change; or

Guidance

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- (b) an 'external' change such as:
 - (i) a change in CLP classification of substances already present which means an existing quantity then exceeds the threshold;
 - (ii) a change to a qualifying quantity in Schedule 1;
 - (iii) a change in knowledge of dangerous substances generated during loss of control of a chemical process at an establishment.

150 Appendix 1 gives further guidance on types of establishment.

151 You should discuss all safety report submissions with the competent authority at an early stage.

Regulation

9

- (1) *A safety report prepared by an operator must –*
 - (a) *contain as a minimum the data and information specified in Schedule 3; and*
 - (b) *identify the organisations involved in preparing it.*
- (2) *An operator must send a safety report to the competent authority –*
 - (a) *where the establishment is a new establishment, within a reasonable period of time prior to –*
 - (i) *the start of construction of the establishment;*
 - (ii) *the start of operation of the establishment;*
 - (iii) *any modifications leading to a change in the inventory of dangerous substances at the establishment;*
 - (b) *where the establishment is an existing establishment –*
 - (i) *in any case where a review of the safety report (within the meaning of regulation 2(1) of the 1999 Regulations) would, had those Regulations not been revoked by these Regulations, have been required to be carried out by the operator before 1st June 2016, no later than five years after the relevant date;*
 - (ii) *in any other case, on or before 1st June 2016;*
 - (c) *where the establishment is an other establishment, within two years beginning on the date on which the establishment, or site of operation, first becomes an other establishment.*

Guidance

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New establishment – pre-construction stage

152 Where construction of an establishment starts after these Regulations come into force, the safety report should be submitted a reasonable period of time before construction begins. This approach requires you to submit parts of a safety report at a point before conceptual design decisions are finalised.

153 The pre-construction parts of a safety report may be provided as a 'rolling' submission of documents, which taken together would contain all the information needed at the pre-construction stage. For the purposes of this guidance, references to a safety report can mean either a report submitted at one time or as a series of documents.

154 As a general principle, major accidents should be prevented by measures which eliminate or reduce hazard. Therefore, the competent authority should have 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.

Guidance

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155 What constitutes a 'reasonable period of time' before construction varies, but it is normally between three to six months. The scale and complexity of the proposed plant, the extent to which new or unusual technology is employed and the scale of the hazard will be relevant considerations.

156 You 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.

157 It may not be possible for you to provide all the information required by Schedule 3 in a safety report submitted before construction.

158 The pre-construction submission should focus on conceptual design. It should cover issues such as:

- (a) selection of process options (taking into account principles of inherent safety and best practicable environmental options);
- (b) dangerous substances, pressures, temperatures and inventories;
- (c) locational information such as positioning of vessels, occupied buildings etc;
- (d) descriptions of the surrounding environment.

159 The information should also set out:

- (a) the major accident scenarios;
- (b) the philosophy of prevention, control and mitigation (eg secondary and tertiary containment);
- (c) the approach to putting in place an effective SMS;
- (d) how human factors will be addressed at the right stages of the design process.

160 If the establishment is a 'turnkey' project built to a standard design, it may be that much of the information in Schedule 3 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. Information should also be included to show how the design meets relevant standards.

161 At this pre-construction stage the competent authority will examine, as far as it can, whether the purposes of the safety report in regulation 8 have been fulfilled. If there are matters which require attention the competent authority will confirm them, in writing, to you. The nature of, and timescales for, any remedial action will be discussed with you.

New establishment – pre-operation stage

162 For a new-build establishment, start of operation is taken to be the first time that dangerous substances are introduced into the establishment and will include commissioning if dangerous substances, in any quantity, are used at that stage.

163 For new builds, the part of the safety report submitted before operation should build upon and update the earlier pre-construction report and describe how any previously outstanding issues have been resolved. Information that was submitted before construction does not need to be resubmitted before operation if it is still 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

Guidance

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construction. You can integrate the pre-construction and pre-operation parts and submit this as a complete safety report before operation. Taken together, the two parts should allow the competent authority to see the whole basis on which the measures necessary to prevent and mitigate a major accident have been taken.

164 The pre-operation part of the safety report should include those elements which were not available at the pre-construction stage. This is likely to include operational systems of prevention, control and mitigation, together with management systems.

165 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 between three 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.

New establishment – pre-modification

166 Operators of establishments brought into upper tier by modifications leading to a change in quantity of dangerous substance – an 'operator-initiated' change – must prepare their safety report in advance of the change to their inventory.

167 For an existing site of operation or lower-tier establishment, the start of operation for the modification is considered to be when the presence of dangerous substances meets or exceeds one of the threshold values in Schedule 1.

168 The pre-modification safety report submission must meet the requirements of regulations 8 and 9 and Schedules 2 and 3. In some circumstances, the scale and complexity of the planned modification may lead the operator to adopt a similar approach to that for pre-construction and pre-operation safety reports, ie a rolling submission of documents, which taken together would contain all the information required. This approach should be agreed with the competent authority.

169 Major accidents should be prevented by measures that eliminate or reduce hazard. Therefore, the competent authority should have the opportunity to review as much information as possible at an early stage in the development of the pre-modification safety report, to determine whether inherent features of the modification design are sufficient to prevent, control and mitigate major accidents.

170 If the modification is a 'turnkey' project built to a standard design, operators should ensure that the pre-modification safety report shows how the final design meets relevant standards.

171 There should be sufficient discussion between you and the competent authority during the development of the pre-modification safety report so that the submission can be made a 'reasonable period' before the modification to the inventory of dangerous substances; normally three to six months in advance.

172 You should 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.

Guidance

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Existing establishments

Safety report due for review before 1 June 2016 under the COMAH Regulations 1999

173 Regulation 9(2)(b)(i) requires that you must keep to the deadline set under those Regulations for your submission. The review should be comprehensive. It must include classification of dangerous substances using CLP. If any material change, such as the introduction of a new major accident scenario, has arisen from the move to CLP classification this must be fully considered. The newly specified items in Schedule 3 (and Schedule 2, as it is referred to in Schedule 3) must be included.

Safety report due for review on or after 1 June 2016 under the COMAH Regulations 1999

174 Regulation 9(2)(b)(ii) requires you to send a safety report to the competent authority by 1 June 2016 that must satisfy the requirements of regulations 8 and 9 and Schedules 2 and 3. To meet this standard, dangerous substances will need to be classified using CLP and the newly specified items in Schedules 2 and 3 must all be included. Any material change arising from the move to CLP should be fully considered. In addition to this requirement, you can choose:

- (a) to keep the deadline for carrying out the full five-year review required by the 1999 Regulations and then continue with that five-year review timetable into the future; or
- (b) to carry out the review required by regulation 10(1) of these Regulations in advance of the five-year revision date and submit the revised safety report, or its revised parts, by 1 June 2016. You should inform the competent authority that this is the approach you are taking. The five-year review timetable will then be reset.

Other establishments

175 Other establishments are those where an external change (eg a change in CLP classification) has resulted in the site becoming upper tier. These establishments have up to two years to prepare a safety report and send it to the competent authority.

176 There should be sufficient discussion between you and the competent authority during the development of the safety report, and in particular at an early stage, so that the required submission can be made within the two-year limit.

177 The safety report submission must meet the requirements of regulations 8 and 9, and Schedules 2 and 3. In some circumstances, the scale and complexity of the activities may make it appropriate for you to provide a rolling submission of documents that, taken together, would contain all the required information. This approach should be agreed with the competent authority.

Regulation

9

(3) *An operator is not required to include in a safety report any information previously sent to the competent authority under paragraph (2), if that information remains valid.*

(4) *Where an operator had, immediately before 1st June 2015, sent to the competent authority a safety report in relation to an establishment under regulation 7 or 8 of the 1999 Regulations, ("the original report"), that operator may comply with paragraph (2)(b) by sending to the competent authority only those parts of the original report that are revised to ensure compliance with regulation 8, this*

Regulation 9

regulation and Schedule 3, and the original report (and its revised parts) is to be treated as a safety report sent under paragraph (2)(b).

Guidance 9

178 You would normally submit a complete revised safety report, but could choose to submit revised parts only. You should inform the competent authority of the scope of your review.

Regulation 9

(5) The competent authority may specify in writing the format of revisions to be provided under paragraph (4).

Guidance 9

179 The competent authority will inform you if it specifies the format.

Regulation 9

(6) Where –

- (a) an operator had, immediately before 1st June 2015, sent to the competent authority a safety report in relation to an establishment under regulation 7 or 8 of the 1999 Regulations;*
- (b) the information contained within that report remains materially unchanged; and*
- (c) it complies with the requirements of regulation 8, this regulation and Schedule 3,*

the operator is not required to send to the competent authority a further safety report under paragraph (2)(b).

Guidance 9

180 If a safety report submitted in accordance with the 1999 Regulations is compliant with regulations 8 and 9, and Schedule 3, of these Regulations, and is still valid, you will not have to send your report to the competent authority by 1 June 2016. To meet this standard, dangerous substances will already have been classified using CLP, no new material changes should have arisen from the move to CLP and the newly specified items in Schedule 3 (and Schedule 2, as it is referred to in Schedule 3) should all be included. If you consider you have met this standard you should inform the competent authority in writing.

Regulation 9

(7) Subject to regulation 23 (prohibition of operation), an operator must not –

- (a) where paragraph (2)(a)(i) applies, start construction of an establishment;*
- (b) where paragraph (2)(a)(ii) applies, start operation of an establishment;*
- (c) where paragraph (2)(a)(iii) applies, make any modifications leading to a change in the inventory of dangerous substances at an establishment,*

until it has received from the competent authority the conclusions of the competent authority's examination of the safety report under regulation 22.

Guidance 9

181 You must not begin any construction work other than early preparatory work such as levelling or extending services to a site until you receive the competent authority's conclusions on the pre-construction safety report. 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.

182 The competent authority will inform you if it has identified a deficiency which is sufficiently serious for it to prohibit operation when construction is complete, eg if it

Guidance 9

was proposed that bulk LPG tanks were to be installed close together without adequate means of fire protection.

183 You must not start operation until you have received the conclusions of the examination of the safety report from the competent authority.

184 You must not start the modifications until you have received the conclusions of the examination of the safety report from the competent authority.

Regulation 9

(8) *For the purposes of paragraph (2)(b) "relevant date", in relation to a safety report within the meaning of regulation 2(1) of the 1999 Regulations, means –*

- (a) *the date on which the safety report was last sent to the competent authority under regulation 7, or, 8(1) of those Regulations; or*
- (b) *the date on which it was last notified under regulation 8(2) or (4) of those Regulations,*

whichever is later.

Regulation 10 Review of safety reports

Regulation 10

(1) *A safety report must be reviewed and, where it is necessary, revised by the operator –*

- (a) *in any case where regulation 9(6) does not apply, no later than five years after the date on which –*
 - (i) *it was last sent to the competent authority; or*
 - (ii) *where it was not required to be sent to the competent authority, it was last reviewed by the operator; or*
- (b) *in any case where regulation 9(6) applies, no later than five years after the date on which the safety report was last sent to the competent authority under regulation 7 or 8 of the 1999 Regulations.*

(2) *Despite paragraph (1), a safety report must be reviewed and, where necessary, revised by the operator –*

- (a) *following a major accident at the establishment;*
- (b) *where a review is justified by new facts or by technological knowledge about safety matters, including knowledge arising from analysis of accidents or near misses;*
- (c) *where a review is justified by developments in knowledge concerning the assessment of hazards;*
- (d) *before making any modifications to the establishment, process or the nature or physical form or quantity of dangerous substances which could have significant consequences for major accident hazards;*
- (e) *following any change to the safety management system (referred to in paragraph 2 of Schedule 3) which could have significant consequences for the prevention of major accidents or the limitation of the consequences of major accidents to human health and the environment.*

(3) *In carrying out a review of a safety report the operator must take into account the purposes specified in regulation 8 and the data and information specified in Schedule 3.*

(4) *Except where paragraph (5) applies, a revised safety report, or revised parts of a report, must be sent by the operator to the competent authority without delay.*

Regulation 10

(5) Where paragraph (2)(d) applies, a revised safety report, or revised parts of it, must be sent by the operator to the competent authority in advance of the proposed modification.

Guidance 10

What to review

185 The safety report must be reviewed and revised, as necessary, to reflect changes at the establishment. You must review the safety report at least every five years. As part of your general duty under regulation 5(4), you should start a discussion with the competent authority at an early stage of the review process well before your submission to reach agreement on how the requirements will be met.

186 The five-year review should be comprehensive and cover the whole of the report.

187 The safety report must be reviewed in the event of one of the trigger events identified in 10(2)(a)–(e). For these events, you will need to consider the extent of review required. These events will vary in their possible impact. In some circumstances, a focused review may be adequate. In other circumstances a comprehensive review of the whole of the report will be necessary. Where a comprehensive review is carried out, this should fulfil the requirement of regulation 10(1).

188 You may also choose to carry out a comprehensive review before the five-year point or in the absence of a trigger event.

189 Whether a comprehensive or focused review is carried out, it should satisfy the requirements of regulation 8 and Schedule 3.

190 Guidance is given below on issues to consider at the five-year stage and about the trigger events.

At least every five years – regulation 10(1)

191 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, control and mitigation of major accidents. Examples include: changes in the land use of areas surrounding the establishment, 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.

192 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. For example, 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.

Trigger events – regulation 10(2)(a) to (c)

193 Safety reports must be reviewed and, if necessary, revised following a major accident at the establishment, where justified by new facts or to take account of

Guidance

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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 inquiry;
- (d) changes in surrounding land use or the environment, eg a change in environmental designation;
- (e) lessons learned from worldwide incidents.

194 Only changes relevant to the hazards identified, the prevention and control measures required or mitigation measures necessary, are likely to justify review and revision of the report. Trivial changes are not likely to justify a review unless the cumulative effect of many such changes is significant.

Trigger event – a modification – regulation 10(2)(d)

195 You must review and, if necessary, revise your safety report before certain modifications are made. This is aimed at modifications to establishments, processes, and the nature or quantity of dangerous substances which could have significant repercussions on the major accident hazards. Changes which either increase or decrease hazard or risk are important. It is not intended to deal with trivial changes.

196 Whether a modification has significant consequences will depend on the degree to which it introduces a new major accident hazard, or increases or decreases the risk from an existing hazard. 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 consequences include:

- (a) a change in the quantity of a dangerous substance;
- (b) changes of phase of a dangerous substance, eg 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, eg 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;
- (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.

197 The review and any necessary revision must be done before the modification is carried out. The revised safety report must also be sent to the competent authority before the modification takes place.

198 As required by regulation 6(6)(c), you have to send a notification to the competent authority of the modification before it is carried out.

Guidance 10

Trigger event – changes to the SMS – regulation 10(2)(e)

199 You must consider whether changes to your SMS might have significant repercussions on your ability to prevent or mitigate a major accident. You need to decide which changes made to the SMS should be included in the safety report, but examples of the types of changes which may be considered significant by the competent authority include:

- (a) changes in use of contractors, management structure and workforce numbers and competences in relation to the operation or maintenance of the establishment;
- (b) changes in health, safety and environment policy, procedures, standards, aims, objectives or priorities, including changes to the MAPP or SMS.

Sending the revision to the competent authority

200 You must send the revised safety report, or revised parts, to the competent authority. You should clearly indicate changes from the previous version. As part of your general duty to assist the competent authority under regulation 5(4) you should provide a document summarising the reasons for the changes to assist assessment.

201 Every time a comprehensive review of the safety report is carried out – either at the five-year point or another point – the revised version must be sent to the competent authority. This will mean that the next revision is due in five years, subject to further reviews following trigger events. The guidance to regulation 22 gives guidance on the competent authority examination.

Regulation 10

(6) *Where a safety report has been reviewed under this regulation, but not revised, the operator must inform the competent authority in writing without delay.*

Guidance 10

202 It may be that a review concludes that the safety report does not need any revision. If so, you must inform the competent authority of this, giving reasons as appropriate.

Status of revised reports

203 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 examination by the competent authority under regulation 22.

PART 4 Emergency plans for upper-tier establishments

Guidance 11–16

204 The Civil Contingencies Act 2004 (CCA) and its supporting Regulations provide a framework defining what civil protection tasks should be performed and how co-operation should be achieved by all parties involved in planning for and responding to emergencies. Although the COMAH Regulations are excluded from the CCA, the arrangements for all emergency preparedness and response at establishments should be fully integrated. CCA Category 1 responders have specific responsibilities, detailed below.

205 This part contains specific duties for upper-tier establishments. The more general emergency planning requirements for lower-tier establishments appear in regulations 5 and 7.

206 Appendix 3 gives details of COMAH duties on operators, including timescales for completion of emergency plans in various circumstances.

Regulation 11 Objectives of emergency plans

Regulation 11

Every internal emergency plan and external emergency plan prepared for the purposes of these Regulations must have the following objectives –

- (a) *containing and controlling incidents so as to minimise the consequences, and to limit damage to human health, the environment and property;*
- (b) *implementing the necessary measures to protect human health and the environment from the consequences of major accidents;*
- (c) *communicating the necessary information to the public and to the services or authorities concerned in the area; and*
- (d) *providing for the restoration and clean-up of the environment following a major accident.*

Guidance 11

207 Consideration must be given to the potential on-site and off-site consequences to human health, the environment and property, and dealing with mitigation action:

- (a) 'Human health' includes the health of all those people who may be on-site at any time, such as operators, supervisors, managers, non-production staff, contractors and visitors; it also includes people off-site, working in the neighbourhood or the public.
- (b) 'Environment' comprises built features, air, water, groundwater, soil, flora and fauna, including those with protected, designated or controlled status, such as Sites of Special Scientific Interest, protected buildings, monuments, ecological species and habitats or designated areas. If any of these features could be affected by a major accident they should be considered by the emergency plan.
- (c) 'Property' to be considered includes, on-site, hazardous process plant and storage plant, along with those buildings with a function particularly related to

Guidance

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safety or protection of the environment, such as control rooms and, off-site, neighbouring businesses and leisure facilities as well as residential buildings.

208 The objectives include the requirement to communicate the necessary information to the public, the emergency services and other relevant authorities in the area. The necessary information is that which allows those receiving it to decide what action they need to take for their own safety and to mitigate the consequences of the major accident. Other authorities will include the local authority, the appropriate environment agency, health bodies and the utilities.

209 Plans 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- and off-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 is a considerable benefit in keeping those in the vicinity of the establishment informed about what is happening.

210 The internal emergency plan details the roles that those who work at 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 external plan, so that emergency services and those responsible for communicating information to those outside the establishment know how they will receive information.

211 Plans should describe the arrangements for restoration and clean-up of the environment after a major accident. They should also include consideration of possible knock-on effects on the food chain, eg through the contamination of crops or grazing land.

212 Operators must take appropriate remedial measures or arrange for them to be taken. These measures should be proportionate to the level of harm caused by the major accident and the risk of continuing harm to people and the environment.

213 Priority should 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. 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 clean-up and restoration.

214 Remedial measures may 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.

215 Longer-term restoration plans should consider what action is required to restore the environment. This might include re-introducing species, and repairing damaged parts of the built environment. 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. The Government's National recovery guidance may be a useful reference (www.gov.uk/national-recovery-guidance).

216 The plan should also consider whether it may be necessary to give information regarding contamination of crops or grazing land to, for example, the Department

Guidance 11

for Environment, Food and Rural Affairs, the Food Standards Agency, the Welsh and Scottish Governments.

Regulation 12 Preparation, review and testing of internal emergency plans

Regulation 12

(1) Every operator of an upper tier establishment must prepare an internal emergency plan, specifying the measures to be taken inside the establishment.

Guidance 12

217 Operators must prepare adequate emergency plans for dealing with consequences within the establishment of possible major accidents and providing assistance with off-site mitigation action. These plans should be in writing and cover the full range of possible major accidents, including your response to reasonably foreseeable low-probability, high-consequence events, such as catastrophic vessel failure, multiple tank fires following an explosion or a deflagration or detonation within an explosives store.

218 If COMAH and other legislation requiring emergency plans apply to the same site, you may prepare a single emergency plan as long as it covers all the requirements.

Regulation 12

- (2) An internal emergency plan must be prepared by the operator –*
- (a) where the establishment is a new establishment, within a reasonable period of time prior to the start of operation of the establishment or any modifications leading to a change in the inventory of dangerous substances at the establishment;*
 - (b) where the establishment is an existing establishment, by 1st June 2016; or*
 - (c) where the establishment is an other establishment, within two years beginning on the date on which the establishment, or site of operation, first becomes an other establishment.*

Guidance 12

219 For operators of new establishments, you should prepare your plans alongside preparation of your safety report. The plan must be prepared before the start of operation or when any inventory changes or modifications are made.

220 Those establishments that were previously top tier and continue to be upper tier should already have an on-site emergency plan. If the plan does not need updating and complies with these Regulations then no action is required. If the plan needs to be updated, this should be done as quickly as possible, and no later than a year after the Regulations come into force (see regulation 12(2)(b)).

221 Where there has been an external change that results in a site becoming an upper-tier establishment, such as a CLP reclassification, a maximum of two years is available to produce an internal emergency plan (see regulation 12(2)(c)).

Regulation 12

(3) Despite paragraph (1), the operator of an existing establishment is not required to prepare an internal emergency plan if –

- (a) the on-site emergency plan prepared under regulation 9 of the 1999 Regulations, immediately before 1st June 2015, remains materially unchanged; and*
- (b) it complies with the requirements of regulation 11 of these Regulations and this regulation,*

in which case it is to be treated as an internal emergency plan prepared under this regulation.

Regulation 12

(4) *An internal emergency plan must contain the information specified in Part 1 of Schedule 4.*

(5) *In preparing an internal emergency plan the operator must consult –*

- (a) *persons working in the establishment;*
- (b) *the appropriate agency;*
- (c) *the emergency services;*
- (d) *the health authority for the area where the establishment is situated;*
- (e) *if the establishment is situated in England, the National Health Service Commissioning Board and Public Health England, an executive agency of the Department of Health; and*
- (f) *the local authority in whose administrative area the establishment is situated, unless the local authority has been exempted under regulation 15 from the requirement to prepare an external emergency plan in respect of the establishment.*

Guidance 12

222 As well as those employed directly by the operator, consultation should include those normally working at the establishment, for example relevant long-term contractors. Consultation with employees and with contractors may either be direct or through appropriately appointed employee representatives.

223 In addition to their role as part of the competent authority, the environment agencies have specific functions in the event of a major accident in connection with mitigating the impacts on the environment. For this reason, the appropriate environment agency for England, Scotland or Wales is a named statutory consultee on the preparation of the internal emergency plan, to ensure that its arrangements 'dovetail' with those of the operator.

224 Emergency services identified as having a role to play in the emergency response must be consulted during preparation of the plan and it must be confirmed that adequate arrangements are in place. For example, if an operator anticipates that an external emergency service would provide fire-fighting foam it should be confirmed that the emergency service can supply this.

225 Health authorities must 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 healthcare aspects of the response to a major accident. This will include ensuring that arrangements are in place with hospitals, ambulance services and other organisations responsible for managing acute 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 up-to-date stocks of antidotes or other medication.

226 In England the NHS Commissioning Board and Public Health England must be consulted. The NHS Commissioning Board is known as 'NHS England'. NHS England runs Local Health Resilience Partnerships (LHRPs) that bring together the health sector organisations involved in emergency planning and response at a local level. It is therefore likely to be a useful forum for consultation.

227 Where a local authority is required to prepare an external emergency plan, the operator must consult it about the internal emergency plan to ensure the two plans dovetail.

Regulation 12

(6) *An operator must at suitable intervals not exceeding three years –*

- (a) *review and, where necessary, revise the internal emergency plan; and*
- (b) *test the plan.*

(7) *Where paragraph (3) applies, the operator must first comply with paragraph (6) before the expiry of three years after the on-site emergency plan was prepared or last reviewed under the 1999 Regulations.*

(8) *In carrying out a review of an internal emergency plan, the operator must take into account –*

- (a) *any changes at the establishment or within the emergency services concerned;*
- (b) *any relevant new technical knowledge; and*
- (c) *any relevant new knowledge concerning the response to major accidents.*

Guidance 12

228 The internal emergency plan must be reviewed and tested. For a plan prepared under the 1999 Regulations, if no material change has happened and no new plan prepared, the three-year review, revision and test timetable will remain. Following a review, if any deficiencies are revealed, the plan must be revised. As good practice, you should inform the local authority of any changes made to your internal plans which would affect the external plans.

Reviewing and revising

229 This guidance is common to reviewing and revising both internal and external plans.

230 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, eg new, more effective means of mitigation;
- (d) knowledge gained as a result of major accidents either on site or elsewhere;
- (e) lessons learned during the testing of emergency plans.

231 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, dutyholders should not wait until the three-year review of their emergency plans is due.

232 To obtain the maximum benefit from an emergency plan test, it is important to review the lessons learned to determine where modifications are required to the plan, and to promote good practice. A record should be made of the recommendations from a test and the identified lessons. Revisions to the emergency plan should then be followed up to ensure that the identified lessons from testing lead to improvements. Information to the public should also be updated if necessary.

Guidance

12

Testing

233 These paragraphs are common to testing both internal and external plans. An emergency plan test is undertaken to give confidence in the accuracy, completeness and practicability of the plan.

234 There are considerable benefits to be gained from testing the internal and external 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 designated authorities' roles in mitigation, both on-site and off-site, are described in the external emergency plan rather than in the internal plan, which deals with the role of the operator. Exercising this part of the external emergency plan with the internal emergency plan can test effective co-ordination of all emergency response personnel handling a major accident at the establishment. Agreement will need to be reached on the overall objectives of the testing and the best way of meeting them.

235 Testing should be carried out at least once every three years. 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. 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.

236 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 major accident scenarios identified in the safety report. Live exercises need to be very carefully planned as they are resource-intensive, and it is important that when they are carried out the maximum benefit is gained from them. On occasions, a full-scale live exercise will be justified.

237 Table-top exercises bring together the appropriate people 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 on a simulated event selected from the major accident scenarios identified in the safety report. Table-top exercises are flexible and can test the response to more than one of the identified major accident scenarios with very little additional effort and expense. They are particularly suitable for exercising longer term elements of the plan, such as the recovery phase.

238 When a table-top exercise is supplemented by live testing of communication aspects of the emergency plan, a 'control post' exercise can be used to examine 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, players 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.

239 Information technology or virtual reality systems are being developed to allow for very realistic simulations of accidents and the response to them. Under some

Guidance 12

circumstances, such systems may be useful when carrying out table-top and 'control post' communication exercises.

240 The nature of the scenario should vary in each three-year cycle, to examine the range of emergency responses required for the foreseeable accidents.

241 All relevant staff across shifts in all the relevant organisations should be trained in their expected response in the event of an emergency. If elements of emergency response are contracted out by the operator, for example spill response and clean up, these contractors should also be included. Although there are clear training benefits to be gained from a test, it is not solely a training exercise; the main purpose is to demonstrate that the plans are accurate, complete and practicable.

242 Dealing with the on-site consequences of major accidents will usually require the assistance of the emergency services and, therefore, it may be appropriate for them to attend many of these tests, but not necessarily all. Other designated authorities also need to be involved in some of the exercises. Within reason, key staff with a role to play in emergency response should have the opportunity to undertake site familiarisation visits.

243 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.

244 In the aftermath of a major 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.

Regulation 13 Preparation of external emergency plans

Regulation 13

(1) Subject to regulation 15, a local authority in whose administrative area an upper tier establishment is situated must prepare an external emergency plan specifying the measures to be taken outside the establishment.

Guidance 13

245 'Local authority' is defined in regulation 2(1) with guidance that sets out how the local authority can vary depending on local government structure in Great Britain; the local authority will be a council or a fire authority.

246 The local authority for the area where an upper-tier establishment is located must prepare a suitable emergency plan for dealing with the consequences of possible major accidents beyond the establishment. As with the internal plan, it should be in writing.

247 The external 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 proportionate to the probability and consequences of the accident occurring.

248 Some local authorities will have several upper-tier establishments in close proximity and will need to prepare emergency plans which take account of the potential consequences from major accidents for all of them. Each establishment

Guidance 13

must have its own external emergency plan, developed in collaboration with the relevant operator. This could, under some circumstances, take the form of a generic plan, with separate detailed annexes for each establishment.

Regulation 13

(2) An external emergency plan must be prepared by the local authority no later than six months (or such longer period not exceeding nine months agreed by the competent authority in writing) after the receipt of the necessary information from the operator.

Guidance 13

249 As soon as possible before a new establishment begins operation, the operator should start discussions with the local authority to give the latter the opportunity to begin developing the external emergency plan.

250 To minimise the risk to those in the vicinity of the establishment while the external emergency plan is being prepared, it would be good practice to put interim arrangements into place. These should be based on any generic emergency planning arrangements the local authority may have, any existing COMAH emergency plans and the information supplied by the operator. The local authority should develop these arrangements in consultation with the emergency services and health bodies for the area in the vicinity of the establishment. The arrangements should give directions for coping with any incidents with off-site consequences until the external emergency plan is in place.

Regulation 13

(3) The operator must provide the local authority with the information necessary to enable it to prepare an external emergency plan.

(4) The information in paragraph (3) must be provided to the relevant local authority before the date on which the internal emergency plan is required to be prepared for the establishment under regulation 12(2).

Guidance 13

251 The local authority cannot prepare an external 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 that information which is relevant to preparing the external plan, including major accident scenarios and consequences. The operator must provide this information by the date on which the internal plan has to be prepared to comply with regulation 12(2) and should also ensure that any information supplied to the local authority is updated as necessary in the light of any changes.

252 Some establishments may be designated by the competent authority as being part of a 'domino group' – establishments where the likelihood or consequences of a major accident may be increased because of the location and proximity of other establishments and the dangerous substances present there. These establishments need special consideration in terms of emergency planning and the testing of the off-site response. The operators in the group must co-operate with each other in supplying any relevant information to the local authority.

Regulation 13

(5) Despite paragraph (1), the local authority is not required to prepare an external emergency plan if –

- (a) the off-site emergency plan prepared under regulation 10 of the 1999 Regulations, immediately before 1st June 2015, remains materially unchanged; and*
- (b) it complies with the requirements of regulation 11 of these Regulations and this regulation,*

in which case it is to be treated as an external emergency plan prepared under this regulation.

Regulation 13

(6) *An external emergency plan must contain the information specified in Part 2 of Schedule 4.*

(7) *In preparing an external emergency plan the local authority must consult –*

- (a) *the operator;*
- (b) *the appropriate agency;*
- (c) *the designated authorities who are liable to be required to respond to an emergency at the establishment;*
- (d) *if the establishment is situated in England, the National Health Service Commissioning Board and Public Health England, an executive agency of the Department of Health; and*
- (e) *such members of the public and other persons as it considers appropriate.*

Guidance 13

253 The external plan must dovetail with the internal emergency plan and the local authority will need to consult closely with the operator.

254 The appropriate agencies are the environment agencies for England, Scotland and Wales who, in the event of a major industrial accident, have specific functions relating to environmental impact beyond their regulatory role as part of the competent authority. For this reason, the appropriate agency is a separately named statutory consultee on the preparation of the external emergency plan. The appropriate agency is normally consulted early and regularly during the development of the external plan to dovetail its response with the local authority.

255 Local authorities must consult relevant designated authorities in the preparation of the external emergency plan so that their concerns and recommendations are taken into account in developing and resourcing the plan. Designated authorities are CCA 2004 'Category 1 responders', and are the 'core' responders to an emergency.

256 Health bodies are included with the designated authorities as they are Category 1 responders. 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 incidents involving health and environmental hazards, such as a chemical release. It is therefore important for them to be aware of potential major accident hazards in order to dovetail their emergency plans and health service arrangements with those of the emergency services and local authority. LHRPs are a useful forum for consultation.

257 Hospitals, ambulance services, accident and emergency departments and other organisations responsible for managing primary and community care near the establishment should, wherever possible, be aware in advance of the possibility of dealing with, and treating, large numbers of people or casualties requiring symptomatic or special treatment.

258 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 external emergency plan. These organisations may be Category 2 responders such as the Food Standards Agency, and water and sewerage undertakers.

Guidance 13

259 The local authority must also consult the public when preparing the external emergency plan, for example through:

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

260 Elected councillors and residents' groups have local knowledge and a community perspective which should help in the production of the emergency plan. They will be able to use appropriate channels of communication with the public in the vicinity of an establishment to obtain their views on the developing plan.

261 The competent authority will check the plan's adequacy as part of its inspection arrangements and, therefore, does not need to be included in the consultation.

Regulation 14 Review and testing of external emergency plans

Regulation 14

(1) *A local authority which has prepared an external emergency plan must at suitable intervals not exceeding three years –*

- (a) *review and, where necessary, revise the plan; and*
- (b) *test the plan.*

Guidance 14

Review

262 Guidance under regulation 12(6)(a) includes reviewing external emergency plans.

Testing

263 Guidance under regulation 12(6)(b) includes testing external emergency plans, as well as internal emergency plans. These paragraphs below are specific to testing external emergency plans.

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

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

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

Guidance 14

267 When testing the external emergency plans for establishments that are part of a domino group, in some circumstances it may 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 establishment at the same time.

268 It may not always be necessary to test the external emergency plans of a domino group 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 establishment in the domino group; within such a scenario the individual establishment's emergency plan might be tested separately.

269 Relevant lessons learned from a test in a domino group establishment should be disseminated to all the other establishments in the group and considered when reviewing all the emergency plans.

Regulation 14

(2) Where regulation 13(5) applies, the local authority must first comply with paragraph (1) before the expiry of three years after the off-site emergency plan was prepared or last reviewed under the 1999 Regulations.

(3) In carrying out a review of an external emergency plan, the local authority must take into account –

- (a) any changes, at the establishment, within the designated authorities concerned or, if the establishment is situated in England, the National Health Service Commissioning Board and Public Health England, an executive agency of the Department of Health;*
- (b) any relevant new technical knowledge; and*
- (c) any relevant new knowledge concerning the response to major accidents.*

(4) Where a local authority is of the opinion that an external plan requires substantial revision, it must consult the persons referred to in regulation 13(7) before making those revisions.

Guidance 14

270 The original consultees should be consulted about any significant revisions to the emergency plan. There is no need for consultation over trivial changes but where changes may affect consultees' responses they will need to know. Many consultees will have been involved in testing the plan and may have a valuable contribution to any revision. The revised plan becomes the plan for the purposes of regulation 13 and must meet all the objectives of regulation 11.

Regulation 14

(5) Where a local authority is of the opinion that in order to test adequately an external emergency plan the co-operation of one or more designated authorities is necessary, it may in writing request such co-operation from those authorities.

(6) Where a designated authority has received a request in accordance with paragraph (5), it must co-operate in the testing of the external emergency plan.

Guidance 14

271 Designated authorities are CCA Category 1 core responders. Before testing, the local authority should agree the overall objectives and the best way of meeting those objectives with the operators and designated authorities. This may take account of other tests being carried out at the establishment or in the vicinity. The suitable scenario or scenarios should be developed from information in the safety report, and the type and nature of the test exercise agreed. The local authority must then identify which organisations need to participate in the emergency plan test and arrange for their co-operation.

Guidance 14

272 Regulation 14(5) and (6) represents a strengthening in the requirement in the previous COMAH Regulations. Although in many areas there has been good practice in testing of external plans, with all parties working well together, there have been cases where a designated authority with a key role to play has not taken part in the planning or execution of a test. This undermines the whole purpose of the test and can waste others' resources.

273 Therefore, where the local authority considers it necessary, it can now formally request co-operation from a designated authority and the designated authority must then co-operate. On rare occasions it is recognised that there could be a last-minute compelling reason why a designated authority cannot take part as planned, such as a major emergency being declared elsewhere. A decision on how best to proceed with the test would then need to be taken in light of the circumstances.

274 It is still expected that, in the vast majority of cases, testing can continue to be arranged in a co-operative and positive manner, and having to make a formal request for co-operation would be a last resort.

275 Regulation 29 allows for a local authority to charge the operator for testing the external emergency plan.

Regulation 15 Exemption of local authority from preparing an external emergency plan

Regulation 15

(1) *The competent authority may exempt a local authority from the requirement to prepare an external emergency plan under regulation 13(1) where, taking into account the information contained in the safety report for the relevant establishment, the competent authority is of the opinion that the establishment is incapable of creating a major accident hazard outside the establishment.*

(2) *An exemption granted by the competent authority under paragraph (1) must be in writing and state the reasons for granting it.*

(3) *The competent authority may withdraw an exemption granted under paragraph (1) by specifying, in writing, the date on which the exemption will cease to apply and the date by which an external emergency plan must be prepared.*

Guidance 15

276 The decision to exempt a local authority from the duty to prepare an external 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 plan and explain its reasons for granting the exemption.

Regulation 16 Implementing emergency plans

Regulation 16

An operator or local authority which has prepared an internal emergency plan or external emergency plan must take reasonable steps to ensure that it is put into effect without delay if –

(a) *a major accident occurs; or*

Regulation 16

(b) *an uncontrolled event occurs which by its nature could reasonably be expected to lead to a major accident.*

Guidance 16

277 The duty to implement the internal and external emergency plans lies with the operator and the local authority, not with the individuals who draw up the plans. The operator or the local authority will have discharged this duty where there are systems in place to ensure there is no unreasonable delay between the discovery of a major accident, or an incident that may lead to a major accident, and activation of the emergency plans.

278 There should be a clear and logical decision-making system in place to ensure that, as soon as a relevant event has occurred, 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, and for the operator or emergency services to advise the local authority of an incident that may require the activation of the external emergency plan. These arrangements should be described in the plans.

279 The plans must specify the name or position of the people authorised to initiate them. The internal 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, eg at an establishment not attended around the clock, the first emergency service to arrive may be more suitable.

PART 5 Information

Guidance 17–21

280 Certain information about establishments must be made available to the public. Under these Regulations there are three types of information that have to be made available:

- (a) information that must be permanently available in an electronic format (regulation 17(1) and (2)), including core information for all establishments and extra provisions for upper-tier establishments;
- (b) for upper-tier establishments, information that must be provided to anyone in an area likely to be affected by a major accident (regulation 18). This area is known as the Public Information Zone;
- (c) information about all establishments (regulation 19). This has to be made available on request under the Environmental Information Regulations 2004 or the Environmental Information (Scotland) Regulations 2004.

Regulation 17 Provision of information to the public

Regulation 17

(1) *The competent authority must make the following information available to the public, including by electronic means, in relation to every establishment –*

- (a) *the name of the operator and the address of the establishment;*
- (b) *confirmation that these Regulations apply to the establishment and that the notification required by regulation 6, and the safety report required by regulation 9, has been sent to the competent authority;*
- (c) *an explanation in simple terms of the activity or activities undertaken at the establishment;*
- (d) *the hazard classification of the relevant dangerous substances involved at the establishment which could give rise to a major accident, with an indication of their principal dangerous characteristics in simple terms;*
- (e) *general information about how the public will be warned, if necessary, and adequate information about the appropriate behaviour in the event of a major accident or an indication of where that information can be accessed electronically;*
- (f) *the date of the last site visit carried out further to a programme for routine inspections under regulation 25(5), and where more detailed information about the inspection and the related inspection plan can be obtained upon request;*
- (g) *details of where further relevant information can be obtained.*

Guidance 17

281 The competent authority has set up a web-based system on HSE's website for the provision of public information (see 'public information' under Further reading); regulation 17(6) refers.

282 Using this web-based system, operators must provide the information in regulation 17(1)(a)–(g) for all establishments and in addition, for upper-tier establishments, the information in regulation 17(2)(a)–(d). You will need to input the information within a reasonable period of time after your establishment becomes

Guidance

17

subject to the Regulations, normally no longer than three to four months. Guidance on how to input the information, the majority of which is through a series of menus, is available on the system.

283 There are transitional arrangements for operators in regulation 33 that allow you to use your 1999 Regulations notification or safety report as a means of complying with this regulation until your 2015 Regulations documents are available.

284 In other cases, if you cannot submit the notification and the safety report together and you have not done either prior to providing the public information, the system provides an option of 'submission pending'. This means that you can then confirm on the system at a later stage when you have submitted the notification and safety report to the competent authority.

285 You will need to confirm the appropriate hazard classification for all relevant dangerous substances that you hold under Schedule 1, Part 1 and Part 2 of the Regulations.

Upper-tier establishments

286 It is important that the public receive general information about how they will be informed in the event of a major accident. For upper-tier establishments this should be agreed with the emergency planners and emergency services who may be involved in dealing with an accident. The system allows you to select information which is appropriate to your establishment.

Lower-tier establishments

287 If you are a lower-tier establishment and therefore do not have an external emergency plan, your MAPP and SMS should contain details about the arrangements in place to deal with an emergency which you can include in the public information.

288 The date of the last site visit (regulation 17(1)(f) refers) is the last planned COMAH regulatory visit, in line with the intervention plan for your establishment. You can select the relevant date from the system. This information will need to be updated after such visits.

289 Details about the inspection and related inspection plan are held by the competent authority; a website address is available on the system.

290 The system also indicates that 'further relevant information can be obtained from the operator of the establishment'.

Regulation

17

(2) *In addition to the information in paragraph (1), the competent authority must make the following information available to the public, including by electronic means in relation to every upper tier establishment –*

- (a) *general information relating to the nature of the major accident hazards, including their potential consequences on human health and the environment, summary details of the main types of major accident scenarios and the control measures to address them;*
- (b) *confirmation that the operator is required to make adequate arrangements within the establishment, in particular liaison with the emergency services, to deal with major accidents and to minimise their consequences;*
- (c) *appropriate information from the external emergency plan in relation to dealing with any consequences outside the establishment from a major accident which must include advice about co-operating with any*

Regulation 17

instructions or requests from the emergency services at the time of an accident;

- (d) where applicable, an indication as to whether the establishment is close to the territory of another Member State with the possibility of a major accident with trans-boundary consequences under the Convention on the Transboundary Effects of Industrial Accidents.*

- (3) The competent authority must ensure that the information in paragraph (1) –*

- (a) is made available to the public, within a reasonable period of time from the date on which the establishment becomes subject to these Regulations; and*

- (b) is kept updated.*

- (4) The competent authority must ensure that the information in paragraph (2) –*

- (a) is made available to the public within a reasonable period of time from the date on which the establishment becomes an upper tier establishment; and*

- (b) is kept updated.*

- (5) The operator of an establishment must –*

- (a) provide the competent authority with –*

- (i) the information specified at paragraph (1)(a) to (e) and, in the case of an upper tier establishment, the information specified at paragraph (2); and*

- (ii) revisions to that information when it becomes necessary to update it;*

- (b) comply with any reasonable request for information from the competent authority, within such period specified in the request, in connection with the preparation of information by the competent authority under paragraph (1) or (2).*

Guidance 17

291 You must ensure that the information you provide is updated whenever it changes. The competent authority checks the public information for content and accuracy as part of its intervention programme.

292 If the competent authority requests information to be included on the web-based system, operators must ensure they provide it within the timeframe set by the competent authority.

Regulation 17

- (6) The competent authority must specify in advance in writing –*

- (a) the means by which operators must provide information under paragraph (5); and*

- (b) the format in which it must be provided.*

(7) The Environment and Safety Information Act 1988 applies to a notice served under –

- (a) regulation 23 (prohibition of operation) 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.

Regulation 18 Provision of information to persons likely to be affected by a major accident at an upper-tier establishment

Regulation 18

- (1) *An operator of an upper tier establishment must ensure that –*
- (a) *every person who is likely to be in the area referred to in paragraph (2); and*
 - (b) *every school, hospital or other area of public use which is in the area referred to in paragraph (2),*

is sent in the most appropriate form, without having to request it, clear and intelligible information on safety measures and requisite behaviour in the event of a major accident at the establishment.

(2) *The area referred to in paragraph (1) is the area notified to the operator by the competent authority as being the area within 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 sent under paragraph (1) must include at least the information required to be made available to the public under regulation 17(1) and (2).*

Guidance 18

293 The purpose of the information for the Public Information Zone (PIZ) is two-fold: firstly, to provide information about the major accident hazards and safety measures in place for people who could be affected by a major accident at an upper-tier establishment; secondly, to provide information about what they should do in the event of a major accident. The information must be provided by the operator and you have to be proactive, ie you must provide the information without waiting for the public involved to ask for it. The duty extends to premises liable to be affected by a major accident, eg areas of public use, 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.

294 The competent authority determines the PIZ area around the establishment to which this duty applies. It is determined 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 escalated. The PIZ does not cover areas where a major accident might cause solely 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 external emergency plans.

295 You must include in the information details about what people should do in the event of a major accident. You must consider everyone who could be in the PIZ should a major accident occur. This will include people passing through the area, eg visiting other premises within the PIZ. In some situations it will be straightforward to contact people in the PIZ. In other circumstances it may not be necessary or realistic to contact everyone individually, such as those visiting shops, leisure facilities and other attractions; in those cases you may be able to feed the information through intermediaries. Operators should discuss with the competent authority and the local authority alternative ways to inform those whose presence cannot be anticipated. For further information see Cabinet Office guidance on civil alerting.⁴

Guidance 18

296 The format of the information must be appropriate for the audience. The public information requirements under regulation 17 will be a useful starting point but it will be necessary to put that information into the context of the establishment, ie it will need to be more detailed and cover practical issues.

297 The level of detail in the information supplied will vary according to the circumstances of each case. To ensure the information is readily understood by a lay reader it is important that it is written in straightforward and simple terms, avoiding the use of complicated technical terms; where their use is necessary, you should give a clear explanation.

298 Some information will be vital in the event of a major accident so you should try to hold the readers' interest and help them remember the advice, eg by highlighting key items and using illustrations. It is important that the advice is in a format that adults could use to inform children.

How to provide the information

299 How you provide PIZ information is not specified and you should decide on the best way; for the wider public possible options include displaying it at the major hazard establishment or, subject to agreement, in public libraries or town halls. For those living or working in the PIZ it could be sent individually by post or suitable electronic means. It could include a summary of safety instructions in an easily retainable format such as a durable card. The public should be advised to keep the information 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. Operators and local authorities are encouraged to publicise its availability.

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

301 You may need to translate the information into other languages. The local authority may be able to give advice about this.

Consulting the local authority

Regulation 18

(4) In preparing the information under paragraph (1), the operator must consult with the local authority in whose administrative area the establishment is situated.

Guidance 18

302 When preparing the PIZ information you must consult the local authority on safety measures and behaviour required in the event of a major accident. In places where different operators have establishments located close together, this consultation will enable the local authority to perform a valuable co-ordinating role. It should ensure that best use is made of local knowledge and expertise in communicating with the public. You may also wish 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 bodies.

Review and revision of the information

Regulation 18

(5) *The operator must review and, where necessary revise, the information sent under paragraph (1) –*

- (a) *at intervals not exceeding 3 years; or*
- (b) *in the event of any modification of the establishment or an installation which could have significant consequences in terms of major accident hazards.*

Guidance 18

303 You must review and, where necessary, revise the information provided to the public every three years or immediately following a modification leading to a change in inventory of dangerous substances. Revising may be necessary to reflect any changes which have taken place in the establishment, the external emergency arrangements, or technical knowledge. However, the review will not necessarily mean there will be a change in the information.

Regulation 18

(6) *The information required under paragraph (1) must be provided to every person and every school, hospital or other area of public use referred to in that paragraph –*

- (a) *if it is revised following a review under paragraph (5); or*
- (b) *otherwise, at intervals not exceeding 5 years.*

Guidance 18

304 People within the PIZ must be given the required information. This should be within a reasonable period of time; six months would normally be appropriate. You may wish to check your PIZ information against the information in your external emergency plan when it has been prepared to see if there is any information from the plan that could be usefully included.

305 The public information should be redistributed 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.

306 Redistribution may also be appropriate before the five-year limit. You may wish to carry out a representative survey of the people in the affected area to see how well they 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 you to decide what to do.

Regulation 19 Provision of information pursuant to a request

Regulation 19

(1) *Where an operator is of the opinion that environmental information which it sends to the competent authority under these Regulations should not be made available on request by reason of –*

- (a) *in the case of the Executive, ONR, Environment Agency or Natural Resources Body for Wales, an exception in regulation 12 or 13 of the 2004 Regulations,*
- (b) *in the case of the Scottish Environment Protection Agency, an exception in regulation 10 or 11 of the 2004 (Scotland) Regulations,*

Regulation 19

the operator must, when it sends that information to the competent authority, inform the competent authority in writing of its opinion and the reasons for it.

(2) Where it receives a request for environmental information under the 2004 Regulations or 2004 (Scotland) Regulations, as the case may be, the competent authority must, in dealing with that request, take into account any opinion and reasons provided by the operator in accordance with paragraph (1) in relation to that information.

(3) In this regulation –

- (a) “the 2004 Regulations” means the Environmental Information Regulations 2004; or*
- (b) “the 2004 (Scotland) Regulations” means the Environmental Information (Scotland) Regulations 2004;*
- (c) “environmental information” has the meaning –*
 - (i) in the case of information sent to the Executive, ONR, Environment Agency or Natural Resources Body for Wales, given in regulation 2(1) of the 2004 Regulations;*
 - (ii) in the case of information sent to the Scottish Environment Protection Agency, given in regulation 2(1) of the 2004 (Scotland) Regulations.*

Guidance 19

307 The COMAH Regulations are linked to the Environmental Information Regulations (EIR) 2004 in England and Wales and the Environmental Information (Scotland) Regulations 2004 in Scotland. They set out the exceptions to the duty for disclosure. See Further reading for links to the regulations.

308 Whenever you send information to the competent authority you must make the competent authority aware, in writing, of any parts which you believe should be exempted and therefore withheld from the public. Any such request should include justification.

309 Where one of the organisations of the competent authority receives a request for disclosure of information it must take into account any written opinion by the operator about the information it has requested to be withheld. The decision on disclosure rests with the competent authority.

Regulation 20 Trans-boundary consequences

Regulation 20

(1) Where an upper tier establishment presents a major accident hazard with possible trans-boundary consequences the competent authority must provide sufficient information to the potentially affected Member State so that the Member State can take this into account in preparing emergency plans and in preparing land use planning policies, or in making land use planning decisions in respect of applications.

(2) Where the competent authority has decided that an upper tier establishment close to the territory of another Member State is incapable of creating a major accident hazard beyond the boundary of the establishment and exempts the relevant local authority under regulation 15 from the requirement to produce an external emergency plan, the competent authority must notify that Member State of its decision and its reasons.

Guidance 20

310 As an island nation, this requirement is unlikely to be applicable in Great Britain and is therefore dealt with on a case-by-case basis.

Regulation 21 Power of the competent authority to accept information in another document

Regulation 21

(1) *Where the competent authority considers it to be expedient, it may permit an operator to provide all or part of the information that the operator is required to include in –*

- (a) *a notification under regulation 6;*
- (b) *a major accident prevention policy;*
- (c) *a safety report;*
- (d) *an internal emergency plan; or*
- (e) *the details of action to be taken following a major accident under regulation 26(1),*

by reference to information contained in another document sent to the appropriate agency, pursuant to a requirement imposed, in England and Wales, under the 2010 Regulations, or, in Scotland under the 2012 Regulations ("the relevant document").

(2) *Where the competent authority grants permission under paragraph (1) the operator must, at the time of sending the information contained in the relevant document inform the competent authority in writing, if it is seeking to rely on paragraph (1) and the extent of that reliance by reference to the relevant sub-paragraphs of that paragraph.*

(3) *The competent authority must assess whether the information contained in the relevant document satisfies the requirements of the relevant provisions of these Regulations and inform the operator of its decision in writing.*

(4) *If the competent authority is of the opinion that the information contained in the relevant document does not satisfy the requirements of the relevant provisions of these Regulations, the operator may not rely on that document as satisfying the requirements of those provisions.*

Guidance 21

311 An operator may request that the competent authority uses information that the operator has supplied to an appropriate agency under the cited regulations. The competent authority will then decide if it is appropriate to use that information.

PART 6 Functions of the competent authority

Regulation 22 Examination of safety reports by the competent authority

Regulation 22

(1) *The competent authority must within a reasonable period of time following receipt of a safety report –*

- (a) *communicate the conclusions of its examination of that safety report to the operator of the establishment; or*
- (b) *if necessary prohibit the bringing into operation, or continued operation, of the establishment, or any part of it, in accordance with regulation 23.*

Guidance 22

312 The competent authority has a duty to examine the safety report within a reasonable time. The time needed will depend on the size and complexity of the establishment and the information received.

The examination of the safety report

313 The process for the competent authority's examination of a safety report is described on HSE's COMAH webpages. The arrangements for managing the process are also described.

Serious deficiency

314 Where examination of the safety report reveals a possible serious deficiency, the operator will be contacted and the situation evaluated, 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 23.

315 The competent authority will not prohibit any activities solely on the basis of examination of the safety report. Prohibition will normally be discussed by the assessment team and agreed by line management in the competent authority.

Communicating conclusions

316 When the competent authority sends its conclusions about the safety report to the operator, this does not imply that it is accepting that the performance standards detailed in the report are being implemented. 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.

Regulation 23 Prohibition of operation

Regulation 23

(1) *The competent authority must prohibit, by serving a notice on the operator, the operation or bringing into operation of any establishment, installation or storage facility, or any part of any establishment, installation or storage facility where the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient.*

Guidance 23

317 The competent authority cannot prohibit construction under this regulation, but may indicate that, if the establishment is built as proposed and is seriously deficient, the operator will be prohibited from bringing it into operation.

318 The competent authority will also prohibit the continued operation of an establishment if it identifies a serious deficiency in any other way, for example during an inspection.

319 The arrangements, controls or systems in place must be seriously deficient for a COMAH prohibition notice to be served. 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 be breached for an accident to occur.

320 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, eg by a competent person examining it and certifying that it is fit for the purpose;
- (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.

Regulation 23

(2) *The competent authority may prohibit, by serving a notice on the operator, the operation or bringing into operation of any establishment, installation or storage facility, or any part of any establishment, installation or storage facility if the operator has not submitted any notification, report or other information required by these Regulations within the specified time.*

Guidance 23

321 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 seek to 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. Incomplete information would also be a significant factor in any decision.

322 The information this regulation refers to includes:

- (a) notifications (regulation 6);
- (b) safety reports (regulations 9 and 10);
- (c) supply of information to local authorities for preparation of the external emergency plans (regulation 13);
- (d) information provided to the public (regulations 17 and 18);
- (e) information exchanged between establishments and with local authorities and the public subject to domino designation under regulation 24;
- (f) information provided following a major accident (regulation 26).

Regulation 23

(3) *A notice served under paragraph (1) or (2) –*

- (a) *must give reasons;*
- (b) *must specify the date when it is to take effect; and*
- (c) *may be withdrawn in writing by the competent authority.*

(4) *In considering whether, under paragraph (1), the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient, the competent authority must, amongst other matters, take into account any serious failures by the operator to take the necessary actions identified by the competent authority in a communication sent to the operator under regulation 25(9)(a).*

Guidance 23

323 The competent authority reports the findings of inspection and investigation to the operator and identifies actions that must be taken to comply with the law. The competent authority follows up on the operator's response. If the operator has not responded adequately such that the major accident risk is not controlled, the competent authority will include this fact in its consideration of whether measures are seriously deficient.

Regulation 23

(5) *The operator must comply with any notice served under paragraph (1) or (2).*

(6) *Section 24 of the 1974 Act (appeal against improvement or prohibition notice) and, regulation 13(1) of, and Schedule 1 to, the Employment Tribunals (Constitution and Rules of Procedure) Regulations 2013 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.*

Guidance 23

324 The HSW Act notice appeals procedure will apply. Appeal will be to an employment tribunal and the prohibition will remain in force until the outcome of the appeal, unless the operator requests a direction from the tribunal for suspension of the effect.

Regulation 24 Domino effects and domino groups

Regulation 24

(1) *The competent authority must identify groups of establishments ("domino groups") where the risk or consequences of a major accident may be increased because of the –*

- (a) *geographical position of establishments;*
- (b) *proximity of establishments to each other; or*
- (c) *inventories of dangerous substances held by establishments.*

Guidance 24

325 In some circumstances, a major accident at one establishment might be triggered by an incident at another – not necessarily adjacent – establishment (the so-called 'domino effect'). The initiating event need not be a major accident itself but must be at an establishment, either upper or lower tier. The duty to identify establishments with the potential to affect neighbouring establishments in this way lies with the competent authority. These establishments are then part of a 'domino group'.

Regulation 24

(2) *In these Regulations "domino effects" means the increase in risk or consequences of a major accident because of one or more of the factors referred to in paragraph (1)(a) to (c).*

Regulation 24

(3) *In identifying domino groups the competent authority may use the following sources of information –*

- (a) *notifications sent under regulation 6;*
- (b) *safety reports;*
- (c) *information it holds pursuant to any of its functions, in England and Wales, under the Planning (Hazardous Substances) Act 1990 or, in Scotland, the Planning (Hazardous Substances)(Scotland) Act 1997;*
- (d) *information from inspections and investigations at establishments.*

(4) *The competent authority may request such additional information from any operator as is necessary for the purposes of this regulation.*

(5) *Where the competent authority has information in addition to that provided by any operator of an establishment which is part of a domino group about the immediate environment of the establishment, or factors which are likely to cause a major accident or to aggravate the consequences of a major accident, including –*

- (a) *details of neighbouring establishments;*
- (b) *sites of operation that fall outside the scope of these Regulations; or*
- (c) *areas and developments that could be the source of or increase the risk or consequences of a major accident and of domino effects,*

the competent authority must provide that information to each operator of an establishment in that group.

Guidance 24

326 The competent authority has instructions in place if factors causing or aggravating a major accident are identified. Where relevant, this information will be shared with the operator. This is to assist the operator with identifying hazards and estimating consequences of major accidents.

Regulation 24

(6) *Where the competent authority identifies a domino group, it must notify each operator of an establishment in that group of the name of the operator and full address of each of the establishments within the group.*

(7) *Where an operator is notified under paragraph (6), it must, using any information received under paragraph (5), co-operate with the operators of each establishment within the domino group in –*

- (a) *putting in place arrangements for the exchange of suitable information with each other so as to enable them to take into account the nature and extent of the major accident hazards in the case of –*
 - (i) *each operator, in its –*
 - (aa) *major accident prevention policy; and*
 - (bb) *safety management system; and*
 - (ii) *each operator of an upper tier establishment, in –*
 - (aa) *its safety report;*
 - (bb) *its internal emergency plan; and*
 - (cc) *the provision of information to persons likely to be affected by a major accident under regulation 18;*
- (b) *informing neighbouring sites to which these Regulations do not apply of their proximity to a domino group and in appropriate cases to provide suitable information to those sites;*
- (c) *preparing information for the purposes of regulation 17(1)(e); and*

Guidance

24

- (d) *supplying the local authority with information relevant for the purposes of preparing an external emergency plan, where one is required under regulation 13.*

327 Where two or more establishments have been designated as being part of a domino group, 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, information about the establishments must be exchanged by the operators.

328 The information must be suitable and relevant. Operators will need to know about potential incidents at other establishments in the group and the ways in which these could trigger a major accident at their own establishment. Details such as substances and their properties may also be required.

329 Discussions will be necessary between domino group members but verbal exchange of information does not provide a permanent record, so some form of documentation is essential.

330 All operators of upper-tier establishments must provide people likely to be affected by a major accident with information in order to fulfil their duties under regulation 18. Those upper-tier operators of domino group establishments should ensure that the information they give takes account of this designation.

331 All operators in the same domino group must co-operate with others in the group to inform neighbouring workplaces, including schools, hospitals and shops, that they are located close to a domino group (see regulation 24(7)(b)). The information should explain what this means and who the members of the group are.

332 In 'appropriate cases', you will have to provide further information. These cases include where a neighbouring site is likely to be affected by a major accident. Where there is an upper-tier operator in the group, it will have prepared information for people likely to be affected by a major accident to comply with its public information duties under regulation 18. This PIZ information is provided to neighbouring workplaces. Therefore, the PIZ information should fulfil this requirement to provide further information.

333 Where there is no upper-tier operator in the domino group, lower-tier operators will have to provide workplaces in their vicinity with 'suitable information' about the group. This will include details about the establishments and their hazards, as well as warnings and appropriate behaviour in the event of a major accident. The public information you have to prepare to comply with regulation 17(5) will contain some of this detail and should therefore help you to comply with this duty. You will need to ensure the emergency information is consistent across the domino group.

334 Operators of upper-tier establishments must ensure that they give the local authority the information needed to take account of domino effects in their external emergency plans.

Regulation

24

(8) *The Executive, the ONR and the appropriate agency must, in appropriate cases, co-operate in –*

- (a) *identifying domino groups under paragraph (1);*
- (b) *providing information to an operator under paragraph (5); and*
- (c) *notifying each operator in a domino group under paragraph (6).*

Regulation 25 Inspections and investigations

Regulation 25

- (1) *The competent authority must organise a system of inspections of establishments appropriate to the type of establishment concerned.*
- (2) *An inspection –*
- (a) *must not be dependent on the receipt of any report submitted by an operator;*
 - (b) *must be sufficient for a planned and systematic examination of the technical, organisational and management systems being employed at an establishment so as to ensure, in particular, that –*
 - (i) *the operator can demonstrate that it has taken appropriate measures, in connection with the various activities of the establishment, to prevent major accidents;*
 - (ii) *the operator can demonstrate that it has provided appropriate means for limiting the consequences of major accidents;*
 - (iii) *the data and information contained in the safety report, or any other report submitted by the operator adequately reflects the conditions in the establishment; and*
 - (iv) *information is supplied to the public in accordance with regulations 17 and 18.*
- (3) *The system of inspections must ensure that all establishments are covered by an inspection plan that includes –*
- (a) *a general assessment of relevant safety issues;*
 - (b) *the geographical area covered by the inspection plan;*
 - (c) *a list of the establishments covered by the plan;*
 - (d) *a list of groups of establishments with possible domino effects;*
 - (e) *a list of establishments where particular external risks or hazard sources could increase the risk or consequences of a major accident;*
 - (f) *procedures for routine inspections, including the programmes for such inspections under paragraph (5);*
 - (g) *procedures for non-routine investigations under paragraph (8); and*
 - (h) *provisions on co-operation between the Executive or the ONR and the appropriate agency.*
- (4) *The inspection plan must be regularly reviewed and revised as appropriate.*
- (5) *Based on the inspection plan the competent authority must prepare programmes for routine inspections of all establishments.*

Guidance 25

335 The competent authority prepares intervention plans for all establishments.

Regulation 25

- (6) *In preparing programmes for routine inspections of establishments the competent authority must ensure in particular that –*
- (a) *it has prepared a systematic appraisal of major accident hazards of the establishments;*
 - (b) *the programmes are regularly reviewed and revised, where necessary; and*
 - (c) *the programmes provide for the frequency of site visits for different types of establishment.*

Regulation 25

(7) *In carrying out a systematic appraisal referred to in paragraph (6)(a) the competent authority must take into account –*

- (a) *the potential impacts of the establishments on human health and the environment;*
- (b) *the record of the operators of the establishments in complying with the requirements of these Regulations; and*
- (c) *the relevant findings, if any, of inspections carried out by the appropriate agency, in England and Wales, under the 2010 Regulations, or in Scotland, the 2012 Regulations.*

Guidance 25

336 The Seveso III Directive strengthens requirements for inspection and improves consistency of implementation across Europe (inspection is defined broadly in regulation 2(1)). It offers an option of fixed inspection intervals or determining inspection frequency on the basis of the hazard and risk presented by an establishment. These Regulations use the latter option as the competent authority has a well-developed and established methodology for identifying hazard and risk that allows more informed decisions to be taken on inspection frequency.

Regulation 25

(8) *The competent authority must investigate, as soon as possible, when it comes to its attention in relation to any establishment that there have been –*

- (a) *serious complaints;*
- (b) *serious accidents or near misses; or*
- (c) *occurrences of significant non-compliance with these Regulations.*

Guidance 25

337 This regulation extends the previous requirement on the competent authority to investigate major accidents. The terms 'serious' and 'significant' should be interpreted in relation to major accident potential; the immediate and/or underlying causes would be likely to increase the risk of a major accident.

Regulation 25

(9) *Following the conclusion of an inspection or investigation under this regulation, the competent authority must –*

- (a) *within 4 months after the date of the inspection or investigation communicate its conclusions and all the necessary actions it requires to be taken to the operator; and*
- (b) *take reasonable steps to ensure that the operator takes all the necessary actions within a reasonable time after receipt of the communication containing the conclusions.*

(10) *Where, following the conclusion of an inspection or investigation under this regulation, the competent authority has identified an important case of non-compliance with these Regulations it must carry out an additional inspection within 6 months.*

Guidance 25

338 The competent authority will report its inspection and investigation conclusions and actions in a timely manner. It will follow up on this in an appropriate way.

339 An 'important case of non-compliance' is one where the actions required of the operator are enforceable and failure to implement the measures required would be likely to lead to subsequent enforcement action. The 'additional inspection' is an inspection as defined in regulation 2(1) and does not necessarily involve a visit to the establishment by the competent authority.

Regulation 25

(11) Where the competent authority considers it to be expedient, inspections and investigations under this regulation may be co-ordinated with inspections and investigations carried out by the appropriate agency under,

- (a) in England and Wales, the 2010 Regulations; or*
- (b) in Scotland, the 2012 Regulations.*

Guidance 25

340 The competent authority intervention plan is drawn up alongside inspection planning for the Environmental Permitting (England and Wales) Regulations 2010 and the Pollution Prevention and Control (Scotland) Regulations 2012.

PART 7 Action to be taken following a major accident

Regulation 26 Action to be taken following a major accident

Regulation 26

- (1) *Following a major accident, the operator of the establishment where the accident occurred must, as soon as practicable –*
- (a) *inform the competent authority of the occurrence of the accident;*
 - (b) *provide the competent authority with the following information as soon as it becomes available –*
 - (i) *the circumstances of the accident;*
 - (ii) *the dangerous substances involved;*
 - (iii) *the data available for assessing the consequences of the accident on human health, the environment and property; and*
 - (iv) *the emergency measures taken;*
 - (c) *inform the competent authority of the steps it is envisaged are required in order to –*
 - (i) *mitigate the medium term and long term consequences of the accident; and*
 - (ii) *prevent any recurrence of such an accident;*
 - (d) *update the information provided under sub-paragraphs (b) and (c), if further investigation reveals additional facts which alter that information or the conclusions drawn.*

Guidance 26

341 Operators must report any major accidents that meet the definition in regulation 2(1) to the competent authority. You must provide any information the competent authority needs to investigate the accident. This duty is supported by regulation 5(3) and (4) that requires you to assist the competent authority.

Regulation 26

- (2) *Following a major accident the competent authority must –*
- (a) *ensure that any urgent, medium term and long term measures which may prove necessary, are taken;*
 - (b) *collect by inspection, investigation or other appropriate means the information necessary for a full analysis of the technical, organisational and managerial aspects of the accident;*
 - (c) *take appropriate action to ensure that the operator takes any necessary remedial measures; and*
 - (d) *make recommendations on future preventive measures.*

Guidance 26

342 The necessary measures could be connected with the current accident or to prevent another one.

343 The competent authority must conduct a thorough investigation into the accident, the immediate and underlying causes, and the effectiveness of the emergency measures.

Guidance 26

344 Any remedial measures will need to be proportionate to the harm caused by the accident and the risk of continuing harm to people and the environment. The competent authority will ensure these measures are taken.

345 Recommendations for future preventative measures are considered as part of the investigation process and may not be available until sometime after the accident.

Regulation 26

(3) Subject to paragraph (4), where a major accident occurs which meets the criteria set out in Schedule 5, the competent authority must as soon as it is practicable, and in any event within one year of the date of the accident, provide the European Commission with the following information –

- (a) confirmation that the accident occurred in Great Britain and the name and address of the competent authority;*
- (b) the date, time and place of the accident, including the full name of the operator and the address of the establishment concerned;*
- (c) a brief description of the circumstances of the accident, including the dangerous substances involved and the immediate consequences on human health and the environment;*
- (d) a brief description of the emergency measures taken and immediate precautions necessary to prevent recurrence; and*
- (e) the results of the competent authority's analysis and recommendations.*

Guidance 26

346 The competent authority will collect details of the major accident and report it to the European Commission, where the criteria in Schedule 5 are met.

Regulation 26

(4) In relation to the information referred to in paragraph (3)(e) –

- (a) where the competent authority is able only to provide preliminary information within the time limit in paragraph (3), it must provide updated information to the European Commission when the results of further analysis and recommendations are available; and*
- (b) the provision of information to the European Commission may be delayed where in the opinion of the competent authority to report such information risks prejudicing the conduct of existing or future legal proceedings.*

(5) Following a major accident the local authority in whose administrative area the accident has occurred must inform the persons likely to be affected of –

- (a) the accident which has occurred; and*
- (b) where relevant, of the measures undertaken to mitigate its consequences.*

Guidance 26

347 This requirement is part of the wider public information provision that the Seveso III Directive requires. The local authority will already be prepared to pass on information to the public after other types of significant incidents in their area, and similar arrangements can be used after a major accident. Where a major accident has happened at an upper-tier establishment, the PIZ area (regulation 18) can be used to help identify people likely to be affected. In any case, the local authority will be able to judge after a major accident, with advice from the competent authority and other specialists, who is likely to be affected.

PART 8 Enforcement and penalties

Regulation 27 Enforcement and penalties

Regulation 27

(1) Subject to paragraph (2), to the extent they would not otherwise do so, the following provisions of the 1974 Act apply to these Regulations as if they were health and safety regulations for the purposes of that Act and any function of the Executive under any other provision of the 1974 Act under or in respect of health and safety regulations (including their enforcement) is 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 –

- (a) sections 16 to 21 (approval of codes of practice and enforcement);
- (b) section 23 (provisions supplementary to sections 21 and 22) and section 24 (appeal against improvement or prohibition notice), so far as they relate to an improvement notice;
- (c) section 26 (power to indemnify inspections); and
- (d) subject to paragraph (6), sections 33 to 42 (provisions as to offences).

(2) In relation to the enforcement of these Regulations –

- (a) on or in relation to an establishment which is or is wholly or partly within a GB nuclear site (within the meaning given in section 68 of the Energy Act 2013), section 18(3B) of the 1974 Act applies as if the reference to the ONR included a reference to the appropriate agency; and
- (b) otherwise section 18(1) of that Act applies as if the reference to the Executive included a reference to the appropriate agency,

but nothing in this paragraph has the effect of making the appropriate agency an enforcing authority for the purposes of the 1974 Act.

(3) Without prejudice to the –

- (a) provisions of the 1974 Act referred to in paragraph (1), section 108(1) of the Environment Act 1995 has effect in relation to a person authorised by the appropriate 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 appropriate agency by or under these Regulations; and
- (b) functions of an inspector appointed under section 19 of the 1974 Act, a person referred to in sub-paragraph (a) may, despite the person not being 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 is to have effect accordingly.

Regulation 27

(4) *A failure to discharge a function placed on the competent authority by these Regulations is not an offence, and section 33(1)(c) of the 1974 Act has effect accordingly.*

(5) *Subject to section 18(1A) of the 1974 Act but despite the Health and Safety (Enforcing Authority) Regulations 1998, the enforcing authority for the relevant statutory provisions –*

- (a) *at an establishment which is a nuclear establishment, is the ONR;*
- (b) *at any other establishment, is the Executive.*

(6) *The maximum penalty for an offence consisting of a contravention of a requirement or prohibition imposed by or under these Regulations is –*

- (a) *on summary conviction –*
 - (i) *in England and Wales, imprisonment for a term not exceeding three months or a fine not exceeding the statutory maximum, or both;*
 - (ii) *in Scotland, imprisonment for a term not exceeding twelve months or a fine not exceeding the statutory maximum, or both; and*
- (b) *on conviction on indictment, imprisonment for a term not exceeding two years, or a fine or both.*

Guidance 27

348 Authorised persons appointed by the appropriate agency can use their powers for the purposes of enforcing these Regulations, for example, for entering establishments.

349 An authorised person may serve an improvement notice under the HSW Act in connection with these Regulations.

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

351 Regulation 27(5) makes HSE or ONR 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 Health and Safety (Enforcing Authority) Regulations. This does not affect the appropriate agencies' role in enforcement of environmental legislation.

PART 9 Fees

Regulation 28 Fees payable by operators to the competent authority

Regulation 28

(1) *A fee is payable by the operator of an establishment to the competent authority for the performance by, or on behalf of, the competent authority of any function conferred on the competent authority by these Regulations.*

Guidance 28

352 This regulation allows the competent authority to recover costs from all operators for time spent by its staff in performing the COMAH functions required by these Regulations.

353 The competent authority has produced guidance for operators on the COMAH cost-recovery scheme (see Further reading for cost recovery on COMAH activities). The guide sets out the cost-recovery arrangements, including details of relevant activities, rates, the method used for calculating rates and examples for a range of establishments.

Regulation 28

(2) *A fee is payable by the operator of an upper tier establishment to the competent authority for the performance by or on behalf of the Executive or of the ONR (as the case may be), or by an inspector appointed by or on behalf of them, of any function conferred on the Executive or the ONR, or the inspector by the 1974 Act (as the case may be) which relates to the enforcement of any of the relevant statutory provisions against one or more of the following –*

- (a) *the operator of the establishment; or*
- (b) *a contractor in relation to any work carried out by the contractor on or in connection with that establishment,*

except in the case of an establishment where the presence of the dangerous substance at the establishment is, in the opinion of the competent authority, for a purpose ancillary to the main activity at the establishment.

Guidance 28

354 This regulation allows the competent authority to extend cost recovery at upper-tier establishments to cover non-COMAH 'relevant statutory provisions'. Further information on how this is applied is available in the cost-recovery guidance referred to above.

355 In some instances, the presence of dangerous substances at an establishment may be for a purpose secondary to the main purpose of the site, such as brick factories storing LPG for firing kilns. In these instances, non-COMAH regulatory activity by the competent authority would not be subject to cost recovery under these Regulations.

Regulation 28

(3) *A fee under this regulation may not exceed the sum of the costs reasonably incurred by the competent authority, the Executive or the ONR (as the*

Regulation 28

case may be) in the performance of their functions in relation to the establishment concerned.

(4) A fee is payable within 30 days from the date of the invoice sent by or on behalf of the competent authority to the operator.

(5) An invoice must include a statement of the work done and the costs incurred by or on behalf of the competent authority, the Executive or the ONR, including the period to which the statement relates.

(6) Where a fee has been paid under paragraph (1) to the Executive or the ONR, as the case may be, it must pay to the appropriate agency any fee or part of any fee it recovers as is attributable to work done by or on behalf of the appropriate agency or by an authorised person in performing the agency's function.

(7) Where a fee has been paid under paragraph (1) or (2) to the appropriate agency, it must pay to the Executive or the ONR, as the case may be, any fee or part of any fee it recovers as is attributable to work done by or on behalf of the Executive or the ONR or by an inspector in performing the Executive's or the ONR's functions.

(8) A fee payable under this regulation is recoverable only as a civil debt.

(9) A fee payable under this regulation may not include any 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, any criminal investigation or prosecution incurred, in either case, after –
 - (i) the inspector or authorised person undertaking the investigation submits a report to the Procurator Fiscal for the 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 under section 24 of the 1974 Act incurred from the date a claim is presented pursuant to the Employment Tribunals (Constitution and Rules of Procedure) Regulations 2013;
- (d) functions of the competent authority related to regulation 13.

(10) In this regulation any reference to work carried out by a contractor is a reference to work carried out by the contractor or by the contractor's employees for the benefit of the person by whom the fees are payable under this regulation, whether under an agreement or an arrangement made with that person or with another person.

Regulation 29 Fees payable to local authorities for the preparation, review and testing of external emergency plans

Regulation 29

(1) A local authority may charge the operator a fee for performing its functions under regulation 13 or 14.

(2) A fee under paragraph (1) may not exceed the sum of the costs reasonably incurred by the local authority in the performance of its functions referred to in that paragraph in relation to the establishment concerned.

(3) A fee may include any costs reasonably incurred by the local authority in arranging for the designated authorities to participate in the testing of the external emergency plan.

(4) A fee is payable within 30 days from the date of the invoice sent by or on behalf of the local authority to the operator.

(5) An invoice must include a statement of the work done and the costs incurred by or on behalf of the local authority, including the period to which the statement relates.

(6) A fee payable under this regulation is recoverable only as a civil debt.

Guidance 29

356 This regulation gives the local authority the power to charge operators for the work it carries out under the COMAH Regulations with respect to regulations 13 and 14 on the production, testing and review of external emergency plans for upper-tier establishments. Local authorities are likely to have their own policies in relation to cost recovery in general, which will influence their approach. Charges under the COMAH Regulations can include costs incurred by the local authority in arranging for the designated authorities to participate in testing the external emergency plan, which can include preparing for and reviewing a test. The operator should not be charged for the designated authorities' involvement in the preparation and review of the plan.

357 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 13 and 14. Where the work is carried out by local authority staff, the charge should be based on the time spent by officers of the appropriate grade, including the average costs of their employment overheads.

358 A local 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.

359 The economies of scale permitted in the regime for testing external emergency plans should reduce the burden on all operators whose plans are under examination. For example, if a live exercise is carried out at one establishment to test the external 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 external 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

Guidance

29

event should be distributed appropriately among the operators who will benefit from the findings of the exercise.

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

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

362 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 burden local authority staff.

PART 10 Consequential amendments, revocations, saving and transitional provisions

Regulation 30 Amendments

Regulation 30

Schedule 6, which makes consequential amendments to secondary legislation, has effect.

Regulation 31 Revocations

Regulation 31

The 1999 Regulations, the Control of Major Accident Hazards (Amendment) Regulations 2005, the Control of Major Accident Hazards (Amendment) Regulations 2008, the Control of Major Accident Hazards (Amendment) Regulations 2009, regulation 3 of the Environmental Permitting (England and Wales) (Amendment) (No.2) Regulations 2013 and, the Heavy Fuel Oil (Amendment) Regulations 2014 are revoked.

Regulation 32 Saving provisions

Regulation 32

(1) *A notification sent by an operator to the competent authority under regulation 6 of the 1999 Regulations (including where regulation 6(3) of the 1999 Regulations applied and a report was sent to the Executive under regulation 7 of the Control of Industrial Major Accident Hazards Regulations 1984) having effect immediately before 1st June 2015 continues to have effect during the relevant period as a notification sent under regulation 6 of these Regulations.*

(2) *For the purposes of paragraph (1) "relevant period" means the period beginning on 1st June 2015 and ending on the date on which the operator sends a notification to the competent authority under regulation 6 of these Regulations.*

(3) *In relation to an existing establishment, except where regulation 7(5) applies, regulation 5 of the 1999 Regulations continues to apply in relation to a major accident prevention policy prepared under regulation 5 of those Regulations immediately before 1st June 2015 as if the 1999 Regulations had not been revoked until such time as the operator has prepared a major accident prevention policy under regulation 7 of these Regulations.*

(4) *In relation to an upper tier establishment –*

- (a) *except where regulation 9(4) applies, regulation 8 of the 1999 Regulations continues to apply in relation to a safety report prepared under regulation 7 or 8 of those Regulations before 1st June 2015 as if the 1999 Regulations had not been revoked until such time as a safety report is sent by the operator to the competent authority under regulation 9(2)(b) of these Regulations;*
- (b) *except where regulation 12(3) applies, an on-site emergency plan prepared under regulation 9 of the 1999 Regulations must be reviewed,*

Regulation 32

tested and put into effect in accordance with regulations 11 and 12 of the 1999 Regulations as if those Regulations had not been revoked until such time as an internal emergency plan is prepared by the operator under regulation 12 of these Regulations;

- (c) *except where regulation 13(5) applies, an off-site emergency plan prepared by a local authority under regulation 10 of the 1999 Regulations must be reviewed, tested and put into effect by that local authority in accordance with regulations 11 and 12 of the 1999 Regulations as if those Regulations had not been revoked until such time as an external emergency plan is prepared by the local authority under regulation 13 of these Regulations;*
- (d) *where immediately before the revocation of the 1999 Regulations by these Regulations regulation 14 of the 1999 Regulations applied to the operator of an establishment –*
 - (i) *information supplied by the operator under regulation 14(1) of the 1999 Regulations having effect immediately before 1st June 2015 continues to have effect during the relevant period as information sent under regulation 18(1) of these Regulations;*
 - (ii) *where an area was notified to the operator by the competent authority under regulation 14(2) of the 1999 Regulations before 1st June 2015 and that notification remained in effect immediately before that date, the notification continues to have effect as a notification under regulation 18(2) of these Regulations;*
 - (iii) *regulation 18(5)(a) of these Regulations, in relation to information sent under regulation 14(1) of the 1999 Regulations, has effect as if the first interval at which the operator of the establishment must review and, where necessary revise, the information started on the date that information –*
 - (aa) *was supplied by the operator under regulation 14(1) of the 1999 Regulations; or*
 - (bb) *was last reviewed and, where necessary revised, by the operator under regulation 14(6) of those Regulations,**whichever is later;*
 - (iv) *regulation 18(6)(b) of these Regulations has effect, in relation to information sent under regulation 14(1) of the 1999 Regulations, as if the first interval at which information must be sent under regulation 18(6) started on the date that information –*
 - (aa) *was supplied by the operator under regulation 14(1) of the 1999 Regulations; or*
 - (bb) *was last supplied by the operator under regulation 14(7) of those Regulations,**whichever is later.*

(5) *Nothing in paragraph (4)(d)(iii) or (iv) affects the obligations of an operator to review and, where necessary, revise the information mentioned in those paragraphs in accordance with regulation 18(5)(b) or 18(6)(a) (as the case may be).*

(6) *For the purposes of paragraph (4)(d)(i) "relevant period" means the period beginning with 1st June 2015 and ending on the date on which the operator sends information under regulation 18(1) of these Regulations.*

Guidance 32

363 The COMAH Regulations 2015 revoke the COMAH Regulations 1999 but notifications, MAPPs, safety reports, emergency plans and information to the public, prepared to comply with duties under the 1999 Regulations, will remain valid and in force until they are replaced by new ones complying with the equivalent duties in the COMAH Regulations 2015. If necessary, they should be kept up to

Guidance 32

date in accordance with the 1999 Regulations until such time as they are replaced by the COMAH Regulations 2015 compliant versions.

Regulation 32

(7) *Where the competent authority had designated a group of establishments under regulation 16 of the 1999 Regulations immediately before 1st June 2015 and that designation remained in effect immediately before that date, the designation continues to have effect as an identification of a domino group for the purposes of regulation 24.*

Guidance 32

364 If an establishment has been identified as being part of a domino group for the purposes of the 1999 Regulations then that establishment will continue to be treated as a member of a domino group under the 2015 Regulations unless the establishment is informed otherwise.

Regulation 32

(8) *A notice served under regulation 18(1) of the 1999 Regulations which is in force or effective immediately before 1st June 2015 continues to have effect as a notice served under regulation 23(1) of these Regulations.*

(9) *A notice served under regulation 18(2) of the 1999 Regulations which is in force or effective immediately before 1st June 2015 continues to have effect as a notice served under regulation 23(2) of these Regulations.*

(10) *A fee payable to the competent authority under regulation 22 of the 1999 Regulations immediately before 1st June 2015 remains payable to the competent authority under regulation 28 of these Regulations.*

(11) *A fee payable to a local authority under regulation 13 of the 1999 Regulations immediately before 1st June 2015 remains payable to the local authority under regulation 29 of these Regulations.*

Guidance 32

365 These Regulations have the effect of allowing any enforcement action begun under the 1999 Regulations to be completed after 1 June 2015. Any invoices for payable fees outstanding before 1 June 2015 continue as such on and after 1 June 2015.

Regulation 33 Transitional provisions

Regulation 33

(1) *Where regulation 32(1) applies, the reference in regulation 17(1)(b), to a notification required by regulation 6, must be construed accordingly.*

(2) *Where regulation 32(4)(a) applies, the reference in regulation 17(1)(b), to a safety report required by regulation 9, must be construed accordingly.*

Guidance 33

366 In the information that is to be made permanently and electronically available to the public under regulation 17, operators are required to confirm that they have provided the competent authority with a notification and a safety report. This regulation allows for operators who have not yet provided a COMAH Regulations 2015 compliant notification and safety report to use their 1999 Regulations safety report as a demonstration of compliance with regulation 17(5)(a)(i).

PART 11 Review

Regulation 34 Review

Regulation 34

(1) *The Secretary of State must from time to time –*

- (a) *carry out a review of these Regulations;*
- (b) *set out the conclusions of the review in a report; and*
- (c) *publish the report.*

(2) *In carrying out the review the Secretary of State must, so far as is reasonable, have regard to how the Directive is implemented in other Member States.*

(3) *The report must in particular –*

- (a) *set out the objectives intended to be achieved by the Directive and by these Regulations;*
- (b) *assess the extent to which those objectives are achieved; and*
- (c) *assess whether those objectives remain appropriate and, if so, the extent to which they could be achieved with a system that imposes less regulation.*

(4) *The first report under this regulation must be published before the end of the period of five years beginning with the day on which these Regulations come into force.*

(5) *Reports under this regulation must afterwards be published at intervals not exceeding five years.*

SCHEDULE 1 Dangerous substances

Schedule

1

Part 1 Categories of dangerous substances

Regulations 2(1) and 3(1)

Column 1	Column 2	Column 3
Hazard categories in accordance with the CLP Regulation	Qualifying quantity in tonnes of dangerous substances for the application of:	
	Lower tier requirements	Upper tier requirements
Section 'H' – HEALTH HAZARDS		
H1 ACUTE TOXIC Category 1, all exposure routes	5	20
H2 ACUTE TOXIC Category 2, all exposure routes Category 3, inhalation exposure route (see note 7)	50	200
H3 STOT SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE STOT SE Category 1	50	200
Section 'P' – PHYSICAL HAZARDS		
P1a EXPLOSIVES (see note 8) Unstable explosives, or Explosives, Division 1.1, 1.2, 1.3, 1.5 or 1.6, or Substances or mixtures which have explosive properties according to method A.14 of Regulation (EC) No. 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (see note 9) and do not belong to the hazard classes Organic peroxides or Self-reactive substances and mixtures	10	50
P1b EXPLOSIVES (see note 8) Explosives, Division 1.4 (see note 10)	50	200

Schedule

1

Column 1	Column 2	Column 3
Hazard categories in accordance with the CLP Regulation	Qualifying quantity in tonnes of dangerous substances for the application of:	
	Lower tier requirements	Upper tier requirements
P2 FLAMMABLE GASES Flammable gases, Category 1 or 2	10	50
P3a FLAMMABLE AEROSOLS (see note 11(1)) 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1	150 (net)	500 (net)
P3b FLAMMABLE AEROSOLS (see note 11(1)) 'Flammable' aerosols Category 1 or 2, not containing flammable gases Category 1 or 2 nor flammable liquids category 1 (see note 11(2))	5,000 (net)	50,000 (net)
P4 OXIDISING GASES Oxidising gases, Category 1	50	200
P5a FLAMMABLE LIQUIDS Flammable liquids, Category 1, or Flammable liquids Category 2 or 3 maintained at a temperature above their boiling point, or Other liquids with a flash point $\leq 60^{\circ}\text{C}$, maintained at a temperature above their boiling point (see note 12)	10	50
P5b FLAMMABLE LIQUIDS Flammable liquids Category 2 or 3 where particular processing conditions, such as high pressure or high temperature, may create major-accident hazards, or Other liquids with a flash point $\leq 60^{\circ}\text{C}$ where particular processing conditions, such as high pressure or high temperature, may create major accident hazards (see note 12)	50	200
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5,000	50,000
P6a SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES Self-reactive substances and mixtures, Type A or B or organic peroxides, Type A or B	10	50
P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES Self-reactive substances and mixtures, Type C, D, E or F or organic peroxides, Type C, D, E, or F	50	200

Schedule

1

Column 1	Column 2	Column 3
Hazard categories in accordance with the CLP Regulation	Qualifying quantity in tonnes of dangerous substances for the application of:	
	Lower tier requirements	Upper tier requirements
P7 PYROPHORIC LIQUIDS AND SOLIDS Pyrophoric liquids, Category 1 Pyrophoric solids, Category 1	50	200
P8 OXIDISING LIQUIDS AND SOLIDS Oxidising Liquids, Category 1, 2 or 3, or Oxidising Solids, Category 1, 2 or 3	50	200
Section 'E' – ENVIRONMENTAL HAZARDS		
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	200
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200	500
Section 'O' – OTHER HAZARDS		
O1 Substances or mixtures with hazard statement EUH014	100	500
O2 Substances and mixtures which in contact with water emit flammable gases, Category 1	100	500
O3 Substances or mixtures with hazard statement EUH029	50	200

Guidance
Schedule

1

Part 2 Named dangerous substances

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

Schedule

1

Column 1	CAS number (1)	Column 2	Column 3
Dangerous substances		Qualifying quantity in tonnes of dangerous substances for the application of:	
		Lower tier requirements	Upper tier requirements
1. Ammonium nitrate (see note 13)	–	5,000	10,000
2. Ammonium nitrate (see note 14)	–	1,250	5,000
3. Ammonium nitrate (see note 15)	–	350	2,500
4. Ammonium nitrate (see note 16)	–	10	50
5. Potassium nitrate (see note 17)	–	5,000	10,000
6. Potassium nitrate (see note 18)	–	1,250	5,000
7. Arsenic pentoxide, arsenic (V) acid and/or salts	1303-28-2	1	2
8. Arsenic trioxide, arsenious (III) acid and/or salts	1327-53-3	–	0.1
9. Bromine	7726-95-6	20	100
10. Chlorine	7782-50-5	10	25
11. Nickel compounds in inhalable powder form: nickel monoxide, nickel dioxide, nickel sulphide, trinickel disulphide, dinickel trioxide	–	–	1
12. Ethyleneimine	151-56-4	10	20
13. Fluorine	7782-41-4	10	20
14. Formaldehyde (concentration ≥ 90 %)	50-00-0	5	50
15. Hydrogen	1333-74-0	5	50
16. Hydrogen chloride (liquefied gas)	7647-01-0	25	250
17. Lead alkyls	–	5	50
18. Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas (see note 19)	–	50	200
19. Acetylene	74-86-2	5	50
20. Ethylene oxide	75-21-8	5	50
21. Propylene oxide	75-56-9	5	50
22. Methanol	67-56-1	500	5,000
23. 4,4'-Methylene bis (2-chloraniline) and/or salts, in powder form	101-14-4	–	0.01

Schedule

1

Column 1	CAS number (1)	Column 2	Column 3
Dangerous substances		Qualifying quantity in tonnes of dangerous substances for the application of:	
		Lower tier requirements	Upper tier requirements
24. Methylisocyanate	624-83-9	–	0.15
25. Oxygen	7782-44-7	200	2,000
26. 2,4 -Toluene diisocyanate 2,6 -Toluene diisocyanate	584-84-9 91-08-7	10	100
27. Carbonyl dichloride (phosgene)	75-44-5	0.3	0.75
28. Arsine (arsenic trihydride)	7784-42-1	0.2	1
29. Phosphine (phosphorus trihydride)	7803-51-2	0.2	1
30. Sulphur dichloride	10545-99-0	–	1
31. Sulphur trioxide	7446-11-9	15	75
32. Polychlorodibenzofurans and polychlorodibenzodioxins (including TCDD), calculated in TCDD equivalent (see note 20)	–	–	0.001
33. The following CARCINOGENS or the mixtures containing 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, Dimethylcarbamoyl chloride, 1,2-Dibromo-3-chloropropane, 1,2-Dimethylhydrazine, Dimethylnitrosamine, Hexamethylphosphoric triamide, Hydrazine, 2-Naphthylamine and/or salts, 4-Nitrodiphenyl, and 1,3 Propanesultone	–	0.5	2
34. Petroleum products and alternative fuels: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams), (d) heavy fuel oils, (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)	–	2,500	25,000

Schedule

1

Column 1	CAS number (1)	Column 2	Column 3
Dangerous substances		Qualifying quantity in tonnes of dangerous substances for the application of:	
		Lower tier requirements	Upper tier requirements
35. Anhydrous ammonia	7664-41-7	50	200
36. Boron trifluoride	7637-07-2	5	20
37. Hydrogen sulphide	7783-06-4	5	20
38. Piperidine	110-89-4	50	200
39. Bis(2-dimethylaminoethyl) (methyl)amine	3030-47-5	50	200
40. 3-(2-Ethylhexyloxy)propylamine	5397-31-9	50	200
41. Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5 % active chlorine and not classified under any of the other hazard categories in Part 1 of this Schedule, provided that the mixture in the absence of sodium hypochlorite would not be classified as Aquatic Acute Category 1 [H400]	—	200	500
42. Propylamine (see note 21)	107-10-8	500	2,000
43. Tert-butyl acrylate (see note 21)	1663-39-4	200	500
44. 2-Methyl-3-butenenitrile (see note 21)	16529-56-9	500	2,000
45. Tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione (Dazomet) (see note 21)	533-74-4	100	200
46. Methyl acrylate (see note 21)	96-33-3	500	2,000
47. 3-Methylpyridine (see note 21)	108-99-6	500	2,000
48. 1-Bromo-3-chloropropane (see note 21)	109-70-6	500	2,000

Schedule 1

Part 3 Notes to Parts 1 and 2

(1) *Substances and mixtures are classified in accordance with the CLP Regulation.*

**Guidance
Schedule 1**

368 Guidance on the CLP Regulation (EC 1272/2008) can be found on the ECHA website. In particular, Annex I of the CLP Regulation provides specific information on classification of substances under CLP. Further guidance is available in the ECHA document *Guidance on the application of the CLP criteria*.⁵

369 It is important to note that it is the classification of a substance, and not the labelling or packaging, which is relevant for COMAH purposes.

370 If an establishment is not covered by one of the exclusions in regulation 3(2), these Regulations apply.

371 The test for application is 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 1?

372 If the answer to this question is 'no', these Regulations do not apply. If the answer to this question is 'yes':

- (a) 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?

373 If the quantity present, or likely to be present, is less than the qualifying quantity in column 2, the Regulations do not apply, although aggregation must be considered. If it equals or exceeds the qualifying quantity in column 3, the Regulations apply at upper tier. If it only equals or exceeds the qualifying quantity in column 2, the Regulations apply at lower tier.

374 The first flow chart in Appendix 1 should help to determine if the Regulations apply.

375 There are four additional factors to take into account when applying the above test; they are:

- (a) the 2% Rule (see note (3));
- (b) substances generated in a major accident (see note (3));
- (c) aggregation (see note (4));
- (d) non-classified substances (see note (5)).

376 Some substances have agreed classifications listed in Table 3.1 in Part 3 of Annex VI of the CLP Regulation; these are known as 'harmonised classifications'. Operators must use these agreed classifications when determining whether these Regulations apply to their activities. Substances which are not listed must be classified by the operator in accordance with the self-classification rules in the CLP Regulation.

Schedule 1

(2) *Mixtures must be treated in the same way as pure substances provided they remain within concentration limits set according to their properties under the CLP Regulation, unless a percentage composition or other description is specifically given.*

**Guidance
Schedule**

1

377 Part 1 of this schedule relates to generic classifications defined by the CLP Regulation. These classifications apply to mixtures as well as to pure substances. The CLP Regulation defines a number of classification calculations for each hazard class which may be applicable for mixtures, where the mixture itself has not been tested but where test data exist for all or most of the constituent pure substances. Further guidance is available on the ECHA website.

Schedule

1

(3) *The qualifying quantities set out in Parts 1 and 2 of this Schedule relate to each establishment.*

The quantities to be considered for the application of these Regulations are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2% of the relevant qualifying quantity must 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 at that establishment.

**Guidance
Schedule**

1

378 This note allows for 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. Operators should note that numerous small quantities stored together, such as small cylinders of toxic gas, each containing less than the 2% threshold but stored adjacent to each other, would count as one. Appendix 2 gives some examples of how the 2% rule works in practice.

379 It is possible that an establishment which has no dangerous substances at or above threshold quantities could generate them during the course of an accident. Indeed, the major accident at Seveso in Italy in 1976, which led to the development of the first Seveso Directive, generated dioxin when a reaction ran away. To ensure that such sites are subject to these controls, regulation 2(3) brings into scope establishments where dangerous substances may be generated during the loss of control of a process.

Schedule

1

(4) *The following rules governing the addition of dangerous substances, or categories of dangerous substances, apply where appropriate.*

In the case of an establishment where no individual dangerous substance is present in a quantity above or equal to the relevant qualifying quantity, the following rule must be applied to determine whether these Regulations apply to the establishment.

An establishment is an upper tier establishment if the sum:

$q_1/Q_{U1} + q_2/Q_{U2} + q_3/Q_{U3} + q_4/Q_{U4} + q_5/Q_{U5} + \dots$ is greater than or equal to 1, where q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Part 1 or Part 2 of this Schedule,

and Q_{Ux} = the relevant qualifying quantity of dangerous substance or category x from Column 3 of Part 1 or from Column 3 of Part 2 of this Schedule.

An establishment is a lower tier establishment 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 q_x = the quantity of dangerous substance x (or category of dangerous substances) falling within Part 1 or Part 2 of this Schedule,

Schedule

1

and Q_{Lx} = the relevant qualifying quantity for dangerous substance or category x from Column 2 of Part 1 or from Column 2 of Part 2 of this Schedule.

This rule must be used to assess the health hazards, physical hazards and environmental hazards. It must therefore be applied three times –

- (a) *for the addition of dangerous substances listed in Part 2 that fall within acute toxicity category 1, 2 or 3 (inhalation route) or STOT SE category 1, together with dangerous substances falling within section H, entries H1 to H3 of Part 1;*
- (b) *for the addition of dangerous substances listed in Part 2 that are explosives, flammable gases, flammable aerosols, oxidising gases, flammable liquids, self-reactive substances and mixtures, organic peroxides, pyrophoric liquids and solids, oxidising liquids and solids, together with dangerous substances falling within section P, entries P1 to P8 of Part 1;*
- (c) *for the addition of dangerous substances listed in Part 2 that fall within hazardous to the aquatic environment acute category 1, chronic category 1 or chronic category 2, together with dangerous substances falling within section E, entries E1 and E2 of Part 1.*

These Regulations apply where any of the sums obtained by (a), (b) or (c) is greater than or equal to 1.

Guidance Schedule

1

380 Note 4 requires the quantities of all the dangerous substances present in an establishment to be added together as partial fractions of their threshold quantities. If the total equals or exceeds 1, the Regulations apply. This calculation must be done for comparison with both the lower-tier and upper-tier thresholds.

381 Only the quantities of substances with similar hazards are added in this way (paragraphs (a), (b) and (c)). The first calculation involves all substances classified as Acute Toxic (relevant Category) or in STOT SE Category 1 and the second adds together all substances classified as explosive, flammable, oxidising or pyrophoric. The final calculation involves those substances classified as hazardous to the aquatic environment.

382 The quantities for all substances of similar hazards are added together in this way whether they are from Part 1 or Part 2 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 a Category 1 Flammable Gas and Category 1 Flammable Liquid, respectively, their quantities would be added together and added to any other flammable, explosive, oxidising, pyrophoric, or self-reactive substances using the partial fraction formula.

383 Where a substance or mixture is included in both Parts 1 and 2 of Schedule 1, the thresholds in Part 2 should be used in the calculations, rather than those in Part 1.

384 The aggregation rule is only for determining if the Regulations apply and at which tier, and will not be needed in every situation. If an establishment has one substance present above the upper-tier (column 3) threshold, it is immediately upper tier and aggregation is irrelevant. However, an establishment with no single substance above the upper-tier threshold could still be an upper-tier establishment if the aggregation rule gave a result equal to or greater than 1. Similarly, a site that holds dangerous substances but doesn't have one single substance present above the lower-tier (column 2) threshold could still be a lower-tier establishment if the aggregation rule gave a result equal to or greater than 1. It is possible that a site

**Guidance
Schedule**

1

without any single substance above the lower-tier threshold could be an upper-tier establishment when the aggregation rule is applied.

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

Schedule

1

(5) In the case of dangerous substances which are not covered by the CLP Regulation, including waste, but which nevertheless are present, or are likely to be present, in an establishment and which possess or are likely to possess, under the conditions found at the establishment, equivalent properties in terms of major accident potential, these must be provisionally assigned to the most analogous category or named dangerous substance falling within the scope of these Regulations.

**Guidance
Schedule**

1

386 There are occasions when a substance does not need to be classified under the CLP Regulation but can be capable of causing a major accident. For example, a dangerous substance generated by a by-product in a process and fed into another process elsewhere on site does not need classifying as it is not to be supplied. Another example is waste, which is not classified by CLP because of the separate classification rules under the European Waste Catalogue.

387 Note 5 requires such substances to be considered in accordance with the classification information in the CLP Regulation and assigned to the most appropriate category. Application of these Regulations is then determined in the normal way.

Schedule

1

(6) In the case of dangerous substances with properties giving rise to more than one classification, for the purposes of these Regulations the lowest qualifying quantities apply. However, for the application of the rule in Note 4, the lowest qualifying quantity for each group of categories in Notes 4(a), 4(b) and 4(c) corresponding to the classification concerned must be used.

**Guidance
Schedule 1**

388 Some substances can be classified in more than one hazard category for the same type of hazard according to Part 1. In this case, the one having the lowest qualifying quantities should apply for the aggregation. For example, for a substance which is hazardous for the environment categories Acute 1 (E1) and Chronic 2 (E2), the lowest qualifying quantities are the ones representing category E1, then those values are the ones that should be used, ie 100 tonnes for lower tier and 200 tonnes for upper tier.

Schedule

1

(7) Dangerous substances that fall within Acute Toxic Category 3 via the oral route (H301) fall under entry H2 ACUTE TOXIC in those cases where neither acute inhalation toxicity classification nor acute dermal toxicity classification can be derived, for example due to lack of conclusive inhalation and dermal toxicity data.

**Guidance
Schedule**

1

389 Substances and mixtures may not have been tested for acute toxicity by all exposure routes. More oral data is available than data for inhalation or dermal routes. Inhalation and dermal routes are more relevant to major accidents. If a substance does not have a classification for inhalation and dermal exposure due to lack of data, but does have a classification of Acute Toxic Category 3 via the oral route (H301), then that substance is in scope of the COMAH Regulations.

390 For mixtures, the mixture toxicity may be calculated using methods in the CLP Regulation from the toxicity data for the constituent substances. Note 7 applies if data for both dermal and inhalation routes are missing that relate to constituents comprising more than 1% of the mixture.

Schedule 1

(8) *The hazard class Explosives includes explosive articles (see Section 2.1 of Annex I to the CLP Regulation). If the quantity of the explosive substance or mixture contained in the article is known, that quantity must be considered for the purposes of these Regulations. If the quantity of the explosive substance or mixture contained in the article is not known, then, for the purposes of these Regulations, the whole article must be treated as explosive.*

Guidance Schedule 1

391 Explosives are divided into two categories: 1. the least 'energetic' explosive substances, mixtures and articles which have been assigned on classification in accordance with the criteria and procedures in Annex I to the CLP Regulation to division 1.4 comprise one category – P1b; and all other explosives comprise the second category – P1a.

392 The classification of an explosive in accordance with the criteria in Annex I to the CLP Regulation can change depending on a number of factors, including:

- (a) the quantity of explosives;
- (b) the presence or absence of packaging or containment;
- (c) orientation.

Schedule 1

(9) *Testing for explosive properties of substances and mixtures is only necessary if the screening procedure according to Appendix 6, Part 3 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria ("the UN Manual of Tests and Criteria")* identifies the substance or mixture as potentially having explosive properties.*

* More guidance on waiving of the test can be found in the A.14 (explosive properties) method description in the Annex to Council Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L142, 31.5.2008, p1).

Guidance Schedule 1

393 The term 'explosive' includes all substances, mixtures and articles with explosive properties whether manufactured or supplied as intentional explosives or not. It includes explosives within the scope of the Explosives Regulations 2014 as well as other substances, mixtures and articles that possess explosive properties. Substances, mixtures and articles are classified as explosives in accordance with the criteria and procedures in Annex I to the CLP Regulation and their response to certain mechanical and thermal stimuli as set out in Part I of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria. Application of the tests also allows assignment of the appropriate risk phrase (H200–205).

Schedule 1

(10) *If Explosives of Division 1.4 are unpacked or repacked, they must be assigned to the entry P1a, unless the hazard is shown to still correspond to Division 1.4, in accordance with the CLP Regulation.*

Guidance Schedule 1

394 Note 10 requires that if Explosives of Division 1.4 are unpacked or repacked, they shall be assigned to the entry P1a, unless the hazard is shown to still correspond to Division 1.4. Because the definition of Hazard Type 4 (HT4) under the Explosives Regulations 2014 effectively aligns to the definition of 1.4 under the provisions of the CLP Regulation, a dutyholder who has assessed and correctly identified the hazard type of any unpackaged or repackaged explosives they are storing as HT4 will be able to show that the hazard still corresponds to Division 1.4 (in accordance with Regulation (EC) No 1272/2008), and such HT4 explosives will not require assignment to the entry P1a.

395 Further guidance on assessing the hazards presented by explosives can be found in paragraphs 24–35 of HSE's *Explosives Regulations 2014: Guidance on Regulations – Safety provisions*.

Schedule 1

(11.1) *Flammable aerosols are classified in accordance with Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers. "Extremely flammable" and "Flammable" aerosols of that Directive correspond to Flammable Aerosols Category 1 and 2 respectively of the CLP Regulation.*

(11.2) *In order to use this entry, it must be documented that the aerosol dispenser does not contain Flammable Gas Category 1 or 2 nor Flammable Liquid Category 1.*

**Guidance
Schedule 1**

396 Dangerous substances in aerosols present particular difficulties for classification purposes. An aerosol dispenser will contain a product, which may or may not be a dangerous substance in its own right, and a propellant, which in many cases is LPG but may be dimethyl ether or a compressed gas such as nitrogen or carbon dioxide. The CLP Regulation requires substances and mixtures to be tested for their physical hazards for classification; this is referred to in Article 8(2) of the CLP Regulation.

397 The category of 'flammable aerosol' may only be used to consider a 'completed aerosol dispenser', that is product and propellant in a suitable canister with a release valve. If the constituent parts of the flammable aerosol have hazardous properties they should be classified under these properties for inclusion in the inventory, but not when present in the finished aerosol dispenser. For example, an aerosol may contain LPG as the propellant, the LPG stored in a tank prior to placing in the aerosol dispenser should be counted under named substance entry 18, whereas once the LPG is contained in a finished aerosol dispenser it should not. In this case the LPG will be accounted for in the classification of the aerosol dispenser. Further information on the definition of an aerosol can be found in note 2.3 to Annex I of the CLP Regulation.

Schedule 1

(12) *According to paragraph 2.6.4.5 in Annex I to the CLP Regulation, liquids with a flash point of more than 35°C need not be classified in Category 3 if negative results have been obtained in the sustained combustibility test L.2, Part III, section 32 of the UN Manual of Tests and Criteria. This is however not valid under elevated conditions such as high temperature or pressure, and therefore such liquids are included in this entry.*

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

This applies to ammonium nitrate based compound/composite fertilisers (compound/composite fertilisers contain ammonium nitrate with phosphate and/or potash) which are capable of self-sustaining decomposition according to the UN Trough Test (the UN Manual of Tests and Criteria, Part III, subsection 38.2), and in which the nitrogen content as a result of ammonium nitrate is –

- (a) *between 15.75%* and 24.5%† by weight, and either with not more than 0.4% total combustible/organic materials or which fulfil the requirements of Annex III-2 to Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers ("Regulation (EC) No 2003/2003"); or*
- (b) *equal to or less than 15.75% by weight or less and unrestricted combustible materials.*

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

† 24.5% nitrogen content by weight as a result of ammonium nitrate corresponds to 70% ammonium nitrate.

Schedule

1

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

This applies to straight ammonium nitrate based fertilisers and to ammonium nitrate-based compound/composite fertilisers which fulfil the requirements of Annex III-2 to Regulation (EC) No. 2003/2003 and in which the nitrogen content as a result of ammonium nitrate is –

- (a) *more than 24.5% by weight, except for mixtures of straight ammonium nitrate based fertilisers 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 straight ammonium nitrate based fertilisers with dolomite, limestone and/or calcium carbonate with a purity of at least 90%.*

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

This applies to ammonium nitrate and mixtures of ammonium nitrate in which the nitrogen content as a result of the ammonium nitrate is –

- (a) *between 24.5% and 28% by weight, and which contain not more than 0.4% combustible substances; or*
- (b) *more than 28% by weight, and which contain not more than 0.2% combustible substances.*

It also applies to aqueous ammonium nitrate solutions in which the concentration of ammonium nitrate is more than 80% by weight.

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

This applies to –

- (a) *material rejected during the manufacturing process and to ammonium nitrate and mixtures of ammonium nitrate, straight ammonium nitrate based fertilisers and ammonium nitrate based compound/composite fertilisers referred to in Notes 14 and 15, that are being or have been returned from the final user to a manufacturer, temporary storage or reprocessing plant for reworking, recycling or treatment for safe use, because they no longer comply with the specifications of Notes 14 and 15;*
- (b) *fertilisers referred to in Note 13(a), and Note 14 which do not fulfil the requirements of Annex III-2 to Regulation (EC) No 2003/2003.*

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

This applies to any composite potassium nitrate based fertiliser (in prilled/granular form) which has the same hazardous properties as pure potassium nitrate.

(18) Potassium nitrate (1,250/5,000).

This applies to any composite potassium nitrate based fertiliser (in crystalline form) which has the same hazardous properties as pure potassium nitrate.

(19) Upgraded biogas.

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

Schedule 1

For the purpose of these Regulations, upgraded biogas may be classified under entry 18 of Part 2 of this Schedule where it has been processed in accordance with applicable standards for purified and upgraded biogas ensuring a quality equivalent to that of natural gas, including the content of Methane, and which has a maximum of 1% Oxygen.

Guidance Schedule 1

398 Upgraded biogas would include any biogas for which dispensation has been granted to transport using the natural gas network. Raw biogas which requires further processing before being suitable for the natural gas network would not be covered by entry 18 of Part 2 of Schedule 1.

399 For the purposes of note 19, the entry for natural gas includes whether liquefied or not.

Schedule 1

(20) Polychlorodibenzofurans and polychlorodibenzodioxins.

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

WHO 2005 TEF*			
2,3,7,8-TCDD	1	2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDD	1	2,3,4,7,8-PeCDF	0.3
		1,2,3,7,8-PeCDF	0.03
1,2,3,4,7,8-HxCDD	0.1		
1,2,3,6,7,8-HxCDD	0.1	1,2,3,4,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDD	0.1	1,2,3,7,8,9-HxCDF	0.1
		1,2,3,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDD	0.01	2,3,4,6,7,8-HxCDF	0.1
OCDD	0.0003	1,2,3,4,6,7,8-HpCDF	0.01
		1,2,3,4,7,8,9-HpCDF	0.01
		OCDF	0.0003

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

* Van den Berg et al *Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds* 2005 World Health Organisation.

Guidance

400 Further information is available in the Van Den Berg paper.

Schedule

1

(21) In cases where this dangerous substance falls within category P5a Flammable liquids or P5b Flammable liquids, then for the purposes of these Regulations the lowest qualifying quantity applies.

**Guidance
Schedule**

1

401 This note allows for these substances to be classified differently depending on how they are being used, for example under pressure or elevated temperature.

Schedule

1

(22) The CAS number is shown only for indication.

**Guidance
Schedule**

1

Petroleum products

402 Many substances can fall under the term petroleum products but only those listed in 'Named dangerous substance' entry 34 come under this category; any others would fall under the relevant generic category in Part 1, unless named in Part 2.

403 Alternative fuels comprise organic liquids used as combustion fuels for the same purposes as petroleum products and with similar hazardous properties.

Other hazards

404 Category O2 – 'Substances and mixtures which in contact with water emit flammable gases Category 1' refers to Category 1 of that category as defined by the CLP Regulation. It does not refer to Flammable Gases Category 1.

SCHEDULE 2 Requirements and matters to be addressed by safety management systems

Schedule 2

Regulation 7

- (1) A safety management system must –
- (a) be proportionate to the hazards, industrial activities and complexity of the organisation in the establishment;
 - (b) be based on assessment of the risks;
 - (c) include within its scope the general management system including the organisational structure, responsibilities, practices, procedures, processes and resources for determining and implementing the major accident prevention policy.

Guidance Schedule 2

405 Operators are free to format documents in a manner that suits them, as long as the specific elements of a safety management system are covered. 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 major accident hazards at the establishment.

406 Operators with Environmental Management Systems (EMSs) may choose to deliver environmental protection requirements through the EMS, but should ensure that the content of the EMS is consistent with the SMS to deliver to requirements of these Regulations.

Schedule 2

- (2) The following matters must be addressed by the safety management system –

- (a) in relation to the organisation and personnel –
 - (i) the roles and responsibilities of personnel involved in the management of major hazards at all levels in the organisation, together with the measures taken to raise awareness of the need for continuous improvement;
 - (ii) the identification of the training needs of such personnel and the provision of the training;
 - (iii) the involvement of employees and of subcontracted personnel working in the establishment, who are important from the point of view of safety;

Guidance Schedule 2

407 The SMS should clearly indicate the responsibilities of all people involved in the management of major hazards. You should identify the skills and abilities required and provide any necessary training.

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

- (a) design, operation and maintenance of plant;

<p>Schedule 2</p>	<ul style="list-style-type: none"> (b) the provision of resources, including human, for SMS development and implementation; (c) action to ensure staff awareness of hazards, and compliance with the 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; (h) inspection and maintenance of the installation.
<p>Guidance Schedule 2</p>	<p>409 The SMS should show how the principle of continuous improvement is applied by relevant personnel to the management of major accident hazards.</p> <p>410 Employees and others present at the establishment, eg 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.</p> <p>411 This section should contain a 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. Details of training programmes or training records are not required but there should be a reference to more detailed documentation. The general framework for how roles and responsibilities for safety are assigned should also be laid out, with reference to supporting documentation specifying particular responsibilities and functions.</p>
<p>Schedule 2</p>	<p>(b) <i>the identification and evaluation of major hazards: the adoption and implementation of procedures for systematically identifying major hazards arising from normal and abnormal operation, including subcontracted activities where applicable, and the assessment of their likelihood and severity;</i></p>
<p>Guidance Schedule 2</p>	<p>412 You should develop and implement procedures to systematically identify and evaluate major hazards arising from your activities (in both normal and abnormal conditions) and from the substances and materials handled or produced in them. Activities carried out by contractors should also be included. 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 the mitigation of their consequences.</p> <p>413 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.</p> <p>414 The SMS should describe how hazard identification and evaluation procedures are applied to all relevant stages from project conception through to decommissioning, including:</p> <ul style="list-style-type: none"> (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

Guidance
Schedule

2

- operations and of non-routine situations, in particular start-up, maintenance, shutdown and temporary activities;
- (c) incidents and possible emergencies, including those arising from competent or material failures, external events and human factors, including failures in the SMS;
 - (d) hazards of decommissioning, abandonment and disposal;
 - (e) hazards from former activities;
 - (f) external hazards, including those arising from natural hazards (including weather), from transport operations, including loading and unloading, from neighbouring activities, and from malicious or unauthorised action.

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

Schedule

2

- (c) *in relation to operational control –*
 - (i) *the adoption and implementation of procedures and instructions for safe operation, including maintenance, of plant, processes and equipment, and for alarm management and temporary stoppages;*
 - (ii) *the taking into account of available information on best practices for monitoring and control, with a view to reducing the risk of system failure;*
 - (iii) *the management and control of the risks associated with ageing equipment installed in the establishment and its corrosion;*
 - (iv) *the inventory of the establishment's equipment, and the strategy and methodology for the monitoring and control of the condition of the equipment;*
 - (v) *appropriate follow up actions and any necessary counter-measures;*

Guidance
Schedule

2

416 You 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.

417 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, including alarm management;
- (f) temporary or special operations;
- (g) operation under maintenance conditions;
- (h) normal shutdown;
- (i) emergency operations including shutdown;
- (j) decommissioning;
- (k) selection and management of contractors.

418 Procedures should also address asset integrity management, including arrangements for managing the risks associated with age-related degradation by, for example, corrosion.

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

**Guidance
Schedule**

2

420 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. You should ensure these procedures are implemented and provide any necessary training.

421 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, to ensure that they are both current and accurate and are being followed.

422 The mechanisms for developing, communicating, revising and updating procedures should be covered although specific procedures will not need to be included. Where appropriate, additional, more detailed documentation can be referred to in the MAPP.

Schedule

2

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

**Guidance
Schedule**

2

423 Change management is an essential factor in the prevention and control of major accidents. You should adopt and implement management procedures for planning and controlling 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;
- (f) definition and implementation of appropriate post-change review procedures and corrective mechanisms and subsequent monitoring.

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

Schedule

2

- (e) *in relation to planning for emergencies –*
 - (i) *the adoption and implementation of procedures to identify foreseeable emergencies by systematic analysis;*
 - (ii) *the preparation, testing and review of emergency plans to respond to emergencies and the provision of specific training for staff, such training to be given to all personnel working in the establishment, including relevant subcontracted personnel;*

**Guidance
Schedule**

2

425 Regulation 12 requires upper-tier establishments to have an internal emergency plan complying with Schedule 4. This plan will usually fulfil the requirements of this aspect of Schedule 2 but the plan does not need to be submitted as part of the safety report.

426 Operators of lower-tier establishments do not have to comply with regulation 12 but must have arrangements in place to deal with an emergency to comply with

Guidance
Schedule

2

Schedule 2, although these are not required to be to the depth required by Schedule 4. 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.

427 You 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 plan to all those likely to be affected by an emergency.

428 The MAPP should indicate the range of emergencies considered. There will be some overlap with the way that operators identify major hazards pursuant to point (b) of this Schedule. 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 also that any new potential emergency situations are identified, for example following modifications, and covered in the plans.

429 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. This should link to the key personnel and roles identified pursuant to point (a) of this Schedule.

Schedule

2

(f) *in relation to monitoring performance –*

- (i) *the adoption and implementation of procedures for the ongoing 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 case of non-compliance;*
- (ii) *the procedures must 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 learned;*
- (iii) *the procedures could also include performance indicators such as safety performance indicators (SPIs) and/or other relevant indicators;*

Guidance
Schedule

2

430 The SMS should describe how you maintain 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, you should identify relevant SPIs 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).

431 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.

432 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 failures of protective measures (including operational

**Guidance
Schedule**

2

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 in future operation.

433 You should define the responsibility for initiating investigation and corrective action in the event of non-compliance with the SMS. 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 described in point (g) of this Schedule.

Schedule

2

- (g) *In relation to audit and review –*
- (i) *the 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;*
 - (ii) *the documented review of performance of the policy and safety management system and its updating by senior management, including consideration and incorporation of necessary changes indicated by the audit and review.*

**Guidance
Schedule**

2

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

435 You should carry out audits of the SMS as a normal part of your business. An audit is a structured process of collecting information on the efficiency, effectiveness and reliability of the whole SMS. It should lead to a plan for corrective action that you should implement. You should develop an audit plan, describe it in the SMS and review it at appropriate intervals. It should define the:

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

436 Senior management should, at appropriate intervals, review your overall safety policy and strategy. The results of monitoring performance and auditing should be used as the basis for making and implementing decisions about improving performance. The SMS should describe the review mechanisms.

SCHEDULE 3 Minimum data and information to be included in a safety report

Guidance Schedule 3

Regulations 9 and 10

437 This Schedule details the minimum information that operators must provide in a safety report. You must provide all the information set out in this part, although it does not have to be set out in the same order.

Schedule 3

(1) *The data and information to be included in a safety report is specified in paragraphs 2 to 6.*

(2) *Information on the management system and on the organisation of the establishment with a view to major accident prevention, including the matters set out in Schedule 2 in relation to the safety management system.*

Guidance Schedule 3

438 For an upper-tier establishment, the MAPP is a separate document within the safety report. It includes your 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.

Schedule 3

(3) *The environment of the establishment –*

- (a) *a description of the establishment 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) *on the basis of available information, identification of neighbouring establishments, as well as sites that fall outside the scope of these Regulations, areas and developments that could be the source of, or increase the risk or consequences of a major accident and of domino effects; and*
- (d) *a description of areas where a major accident may occur.*

Guidance Schedule 3

439 You should provide maps of adequate scale showing the establishment and surrounding land-use within an area which could be affected by major accidents. You should clearly indicate both the land use (eg industry, agriculture, urban developments, environmentally-sensitive locations) and the location of the most significant features (eg hospitals, schools, other industrial sites, airports, harbours, water abstraction points).

440 You should clearly show the layout of the establishment as a whole and its relevant installations 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.

**Guidance
Schedule**

3

441 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;
- (g) control rooms, offices and other occupied buildings such as workshops and canteens which could be vulnerable in a major accident.

442 You should describe the environment and the surroundings of the establishment in a level of detail proportionate to the hazard. It should be clear that you have adequately assessed the hazards posed to safe operation and the vulnerability of the area to the impact of major accidents.

443 The notification required by regulation 6(1) already specifies some of this information so it can be copied into the safety report.

Schedule

3

(4) *The establishment –*

- (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 a major accident could happen, together with a description of proposed preventive measures;*
- (b) *a description of processes, in particular the operating methods, where applicable, taking into account available information on best practices;*
- (c) *a description of dangerous substances, including their classification under the CLP Regulation and –*
 - (i) *an inventory of dangerous substances including –*
 - (aa) *the identification of dangerous substances: the chemical name, CAS number and name according to IUPAC nomenclature;*
 - (bb) *the maximum quantity of dangerous substances present or likely to be present;*
 - (ii) *the physical, chemical, toxicological characteristics and indication of the hazards, both immediate and delayed for human health and the environment;*
 - (iii) *the physical and chemical behaviour under normal conditions of use or under foreseeable accidental conditions.*

**Guidance
Schedule**

3

444 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.

445 You should include an inventory of the dangerous substances which are present or likely to be present at the establishment. You 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 1), 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
Schedule

3

446 You should keep the inventory up-to-date although it does not need to take account of minor changes and fluctuations, only those which could be a significant hazard. You should also amend the inventory 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, you may provide generic information (eg X tonnes of flammables in total, typically comprising Y tonnes of substance A and Z tonnes of substance B). It may be necessary to revise the safety report in accordance with regulation 10(2). There is also the requirement in regulation 6(6) to notify the competent authority when there is a significant change in the quantity of dangerous substances.

447 The description of substances should include, for example, characteristic temperatures and pressures, flashpoints, ignition temperatures, explosion limits, data on reactions and rates of decomposition and information necessary to predict environmental fate/dispersion. It should also include data on toxicology such as toxicity, persistence, acute and long-term effects, synergistic effects and ecotoxic and bioaccumulation data.

Schedule

3

- (5) *Identification and accidental risks analysis and prevention methods –*
- (a) *a detailed description of the possible major accident scenarios and their probability or the conditions under which they might 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; including in particular –*
- (i) *operational causes;*
 - (ii) *external causes, such as those related to domino effects, sites that fall outside the scope of these Regulations, areas and developments that could be the source of, or increase the risk or consequences of a major accident;*
 - (iii) *natural causes, for example earthquakes or floods;*
- (b) *an 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 likely to be affected by such accidents arising from the establishment;*

Guidance
Schedule

3

448 You must identify all potential sources of major accidents and take into account the probability of occurrence and the magnitude of the consequences. The safety report should include a representative set of major accidents. 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 and assessment should:

- (a) identify installations or parts of installations which are particularly relevant to major accidents;
- (b) identify 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, shutdown, loading/unloading etc); the conditions and events can have operational, external and natural causes that should be considered (overflow of vessel, fire impingement from a neighbouring site, a flood or lightning strike etc);
- (c) assess the adequacy of the prevention, control and mitigation measures;
- (d) assess the consequences of potential major accidents.

**Guidance
Schedule**

3

449 You should explain and justify the approach used in deriving these. 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.

450 Your effort should be proportionate to the hazard and risk. 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.

451 The safety report should present the main results and main arguments of the hazard analysis and risk assessment. The 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 criteria used.

452 You should clearly document the major accident scenarios identified, their consequences and likelihood, 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.

453 Information on the extent and severity of the consequences of major accidents includes who might get hurt and how badly, and environmental damage, for the identified possible major accidents. You 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, eg 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 you to determine the depth of demonstration needed, ie where consequences are minor a limited demonstration to show operations are carried out to current and relevant good practice may be adequate.

454 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 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.

Schedule

3

(c) *a review of past accidents and incidents with the same substances and processes used, consideration of lessons learned from these, and explicit reference to specific measures taken to prevent such accidents;*

**Guidance
Schedule**

3

455 You are required to provide information on past accidents and incidents with consideration to what is relevant and practical. This should include lessons learned from others' experience in Great Britain and beyond, where they are relevant to a process or substance on site and its major accident hazard. The European Commission Major Accident Reporting System (eMARS) is designed to allow the exchange of lessons learned from incidents involving dangerous substances from Europe and beyond and its database may contain relevant examples (see Further reading).

Schedule

3

(d) *a description of technical parameters and equipment used for the safety of installations.*

**Guidance
Schedule**

3

456 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, eg by engineering design, process control and instrumentation;
- (b) the means of reducing the hazard, eg use of pressure relief valves, isolation valves, location and design of control rooms;
- (c) in an explosives context, the use of containment structures, venting arrangements or frangible panels.

457 The report should explain, and justify, how necessary measures have been taken compared to the hazards identified during the life cycle of the installation.

458 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, eg scrubbing systems, water-spray vapour screens, emergency catch pots or collection vessels, emergency shutoff valves, remotely-operated shutoff valves (ROSOVs), secondary containment systems;
- (f) alarm systems including fire and gas detection;
- (g) automatic shutdown systems;
- (h) inerting and suppression systems;
- (i) safety instrumented systems;
- (j) emergency venting through valves or explosion panels;
- (k) rapid shutdown and other emergency procedures;
- (l) special precautions against unauthorised actions.

459 The safety report should be clear about which risk assessment methods are being used or whether other arguments are being used, eg 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.

Schedule

3

(6) *Measures of protection and intervention to limit the consequences of a major accident –*

- (a) *a description of the equipment installed in the plant to limit the consequences of major accidents for human health and the environment, including for example detection/protection systems, technical devices for limiting the size of accidental releases, including water spray; vapour screens; emergency catch pots or collection vessels; shut-off valves; inerting systems; and fire water retention;*
- (b) *the organisation of alert and intervention;*
- (c) *a description of mobilisable resources, internal or external; and*
- (d) *a description of any technical and non-technical measures relevant for the reduction of the impact of a major accident.*

**Guidance
Schedule**

3

460 Measures of protection and intervention are not limited solely to emergency response procedures. Mobilisable resources, item 6(c), might include, for example, a description of secondary containment equipment such as booms for spillage

**Guidance
Schedule**

3

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.

SCHEDULE 4 Information to be included in internal and external emergency plans

Schedule

4

Regulations 12 and 13

Part 1 Internal emergency plans

An internal emergency plan must include the following information –

- (a) *the name or position of –*
 - (i) *any person authorised to set emergency procedures in motion; and*
 - (ii) *the person in charge of and co-ordinating the mitigatory action within the establishment;*
- (b) *the name or position of the person with responsibility for liaising with the local authority responsible for the external emergency plan;*
- (c) *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;*
- (d) *the arrangements for limiting the risks to persons within the establishment including how warnings are to be given and the actions persons are expected to take on receipt of a warning;*
- (e) *the arrangements for providing early warning of an incident to the local authority responsible for setting the external 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;*
- (f) *where necessary, the arrangements for training staff in the duties they will be expected to perform and, as appropriate, co-ordinating this with the emergency services;*
- (g) *the arrangements for providing assistance with mitigatory action outside the establishment.*

Part 2 External emergency plans

An external emergency plan must include the following information –

- (a) *the name or position of –*
 - (i) *any person authorised to set emergency procedures in motion; and*
 - (ii) *any person authorised to take charge of and co-ordinate action outside the establishment;*
- (b) *the arrangements for receiving early warning of incidents, and alert and call-out procedures;*
- (c) *the arrangements for co-ordinating resources necessary to implement the external emergency plan;*
- (d) *the arrangements for providing assistance with mitigatory action within the establishment;*
- (e) *the arrangements for mitigatory action outside the establishment, including responses to major accident scenarios as set out in the safety*

Schedule	4

report and considering possible domino effects, including those having an impact on the environment;

- (f) the arrangements for providing the public and any neighbouring establishments or sites that fall outside the scope of these Regulations in accordance with regulation 24 (domino effects and domino groups) with specific information relating to an accident and the behaviour which should be adopted;*
- (g) the arrangements for the provision of information to the emergency services of other Member States in the event of a major accident with possible trans-boundary consequences.*

Guidance Schedule	4
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461 The only change from the earlier COMAH Regulations is in (e) where the link to major accident scenarios, domino effects and impact on the environment are specified, and in (f) where there is specific mention of neighbouring establishments or sites, but these neighbours are likely to have been already included within arrangements for the public.

SCHEDULE 5 Criteria for the notification of a major accident to the European Commission

Schedule

5

Regulation 26

(1) A major accident meets the criteria in this Schedule if it meets the criteria in paragraph 2 or 3.

(2) A major accident falling within paragraph (a), or having at least one of the consequences described in paragraphs (b) to (e) –

- (a) any fire or explosion or accidental discharge of a dangerous substance involving a quantity of at least 5% of the quantity in Column 3 of Part 1 or in Column 3 of Part 2 of Schedule 1;
- (b) injury to persons and damage to property –
 - (i) a death;
 - (ii) six persons injured within the establishment and hospitalised for at least 24 hours;
 - (iii) one person outside the establishment hospitalised for at least 24 hours;
 - (iv) a dwelling outside the establishment damaged and unusable as a result of the accident;
 - (v) the evacuation or confinement of persons for more than 2 hours where the value (persons × hours) is at least 500; or
 - (vi) the interruption of drinking water, electricity, gas or telephone services for more than 2 hours where the value (persons × hours) is at least 1,000;
- (c) immediate damage to the environment –
 - (i) permanent or long-term damage to terrestrial habitats –
 - (aa) 0.5 hectares or more of a habitat of environmental or conservation importance protected by legislation; or
 - (bb) 10 or more hectares of more widespread habitat, including agricultural land;
 - (ii) significant or long-term damage to freshwater and marine habitats –
 - (aa) 10 km or more of river or canal;
 - (bb) 1 hectare or more of a lake or pond;
 - (cc) 2 hectares or more of delta; or
 - (dd) 2 hectares or more of a coastline or open sea; or
 - (iii) significant damage to an aquifer or underground water: 1 hectare or more;
- (d) damage to property –
 - (i) damage to property in the establishment, to the value of at least EUR 2,000,000; or
 - (ii) damage to property outside the establishment, to the value of at least EUR 500,000;
- (e) cross-border damage: any major accident directly involving a dangerous substance giving rise to consequences outside the territory of the Member State concerned.

Schedule	5
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(3) *Any accidents or 'near misses' which the Member State regards as being of particular technical interest for preventing major accidents and limiting their consequences and which do not meet the quantitative criteria in paragraph 2.*

SCHEDULE 6 Amendments to secondary legislation

Schedule

6

Regulation 30

(1) In the Civil Contingencies Act 2004 (Contingency Planning)(Scotland) Regulations 2005, in regulation 9(a), for “1999” substitute “2015”.

(2) In the Regulatory Reform (Fire Safety) Order 2005, in article 47(2)(b), for “1999” substitute “2015”.

(3) In the Civil Contingencies Act 2004 (Contingency Planning) Regulations 2005, in regulation (12)(a), for “1999” substitute “2015”.

(4) In the Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006, in regulation 4(3)(c), for “1999” substitute “2015”.

(5) In the Fire (Scotland) Act 2005 (Commencement No. 3 and Savings) Order 2006, in article 3, for “1999”, substitute “2015”.

(6) In the Waste (England and Wales) Regulations 2011, in regulation 29(5A)(j), for “1999” substitute “2015”.

(7.1) Schedule 4 to the 2012 Regulations is amended as follows –

(7.2) In paragraph 1(1)(o), for “regulation 7 of the Control of Major Accident Hazards Regulations 1999” substitute “Part 3 of the Control of Major Accident Hazards Regulations 2015”.

(7.3) In paragraph 13 –

- (a) in paragraph (d)(ii)(aa), for “regulation 5 of the Control of Major Accident Hazards Regulations 1999 (“the 1999 Regulations)” substitute “regulation 7 of the Control of Major Accident Hazards Regulations 2015 (“the 2015 Regulations)”;
- (b) in paragraph (d)(ii)(bb), for “regulation 7 of the 1999 Regulations” substitute “Part 3 of the 2015 Regulations”;
- (c) in paragraph (da)(i), for “regulation 5 of the 1999 Regulations” substitute “regulation 7 of the 2015 Regulations”;
- (d) in paragraph (da)(ii), for “regulation 7 of the 1999 Regulations” substitute “Part 3 of the 2015 Regulations”.

(7.4) In paragraph 18(a)(ii), for “regulation 7 of the Control of Major Accident Hazards Regulations 1999” substitute “Part 3 of the Control of Major Accident Hazards Regulations 2015”.

Schedule

6

(8.1) *Schedule 7 to the Natural Resources Body for Wales (Functions) Order 2013 is amended as follows.*

(8.2) *In paragraph 9 –*

(a) *for sub-paragraph (1), substitute –*

“(1) This paragraph applies for the purposes of regulation 21(1)(c) of the Control of Major Accident Hazards Regulations 2015.”;

(b) *for sub-paragraph (3), substitute –*

“(3) In this paragraph, “appropriate agency”, “establishment” and “safety report” have the meanings given by regulation 2(1) of the Control of Major Accident Hazards Regulations 2015”.

(9) *In Schedule 2 to the Employment Tribunals and the Employment Appeal Tribunals Fees Order 2013 –*

(a) *in table 1, for “Control of Major Accident Hazards Regulations 1999” substitute “Control of Major Accident Hazards Regulations 2015”;*

(b) *in table 2 in row 47, in columns 3 and 4 of that entry, for “Regulation 18 COMAH” substitute “Regulation 23 COMAH” in both places in which it appears.*

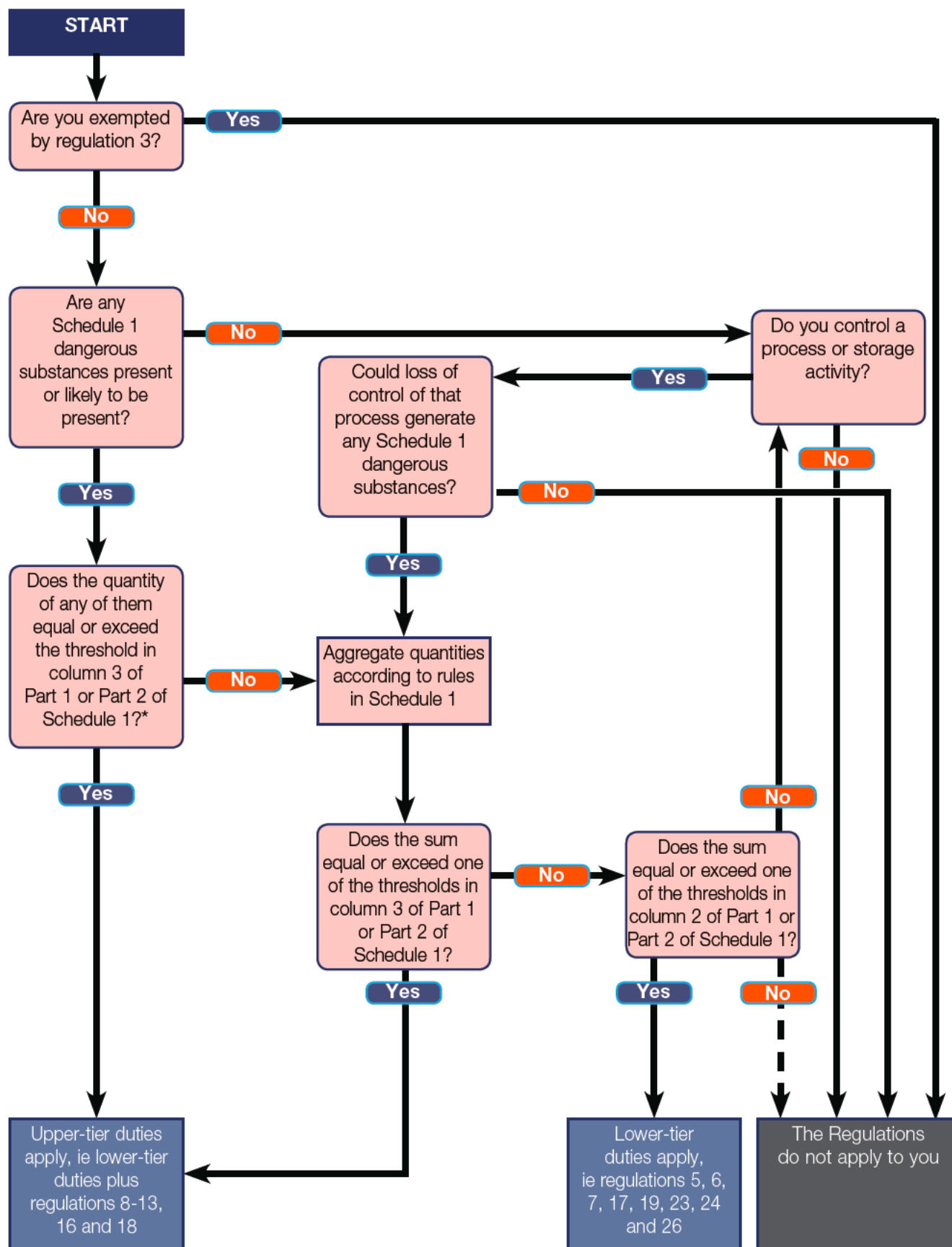
(10) *In the Petroleum (Consolidation) Regulations 2014, in regulation 3(1)(b), for “1999” substitute “2015”.*

(11) *In the Health and Safety and Nuclear (Fees) Regulations 2015 –*

(a) *in regulation 20(3), for “1999” substitute “2015”;*

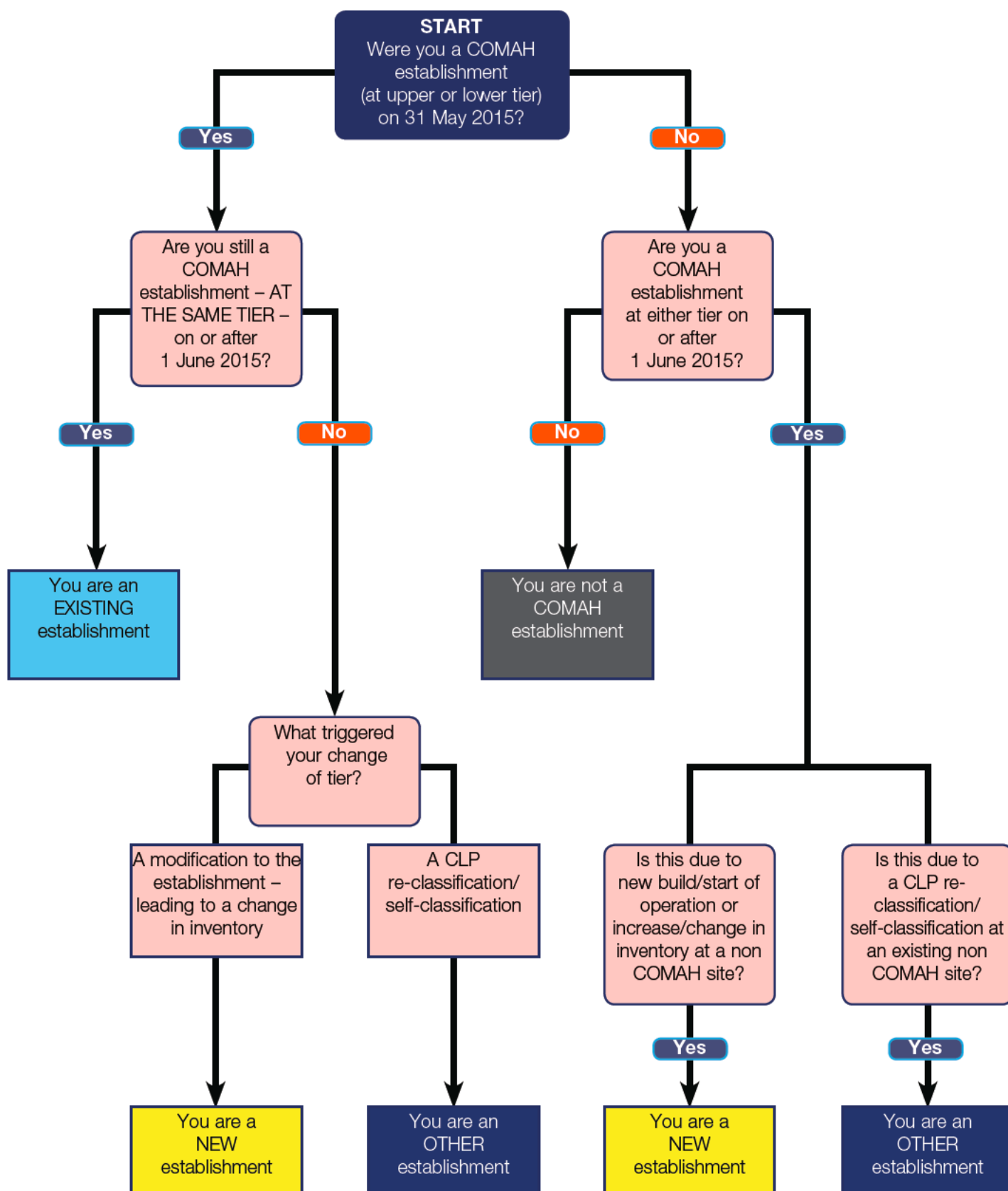
(b) *in regulation 23(16)(a), for “1999” substitute “2015”.*

APPENDIX 1 Do the COMAH Regulations apply to me?



*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 1 and 2), if their location is such that they cannot initiate a major accident elsewhere on site.

What type of establishment do you have?



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 P5c flammable liquids (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 category 2 acute toxic substances (top-tier threshold 200 tonnes) and 1 tonne of arsenic pentoxide (upper-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 upper tier.

2% rule

The 2% rule is given in Schedule 1, Part 3, as follows:

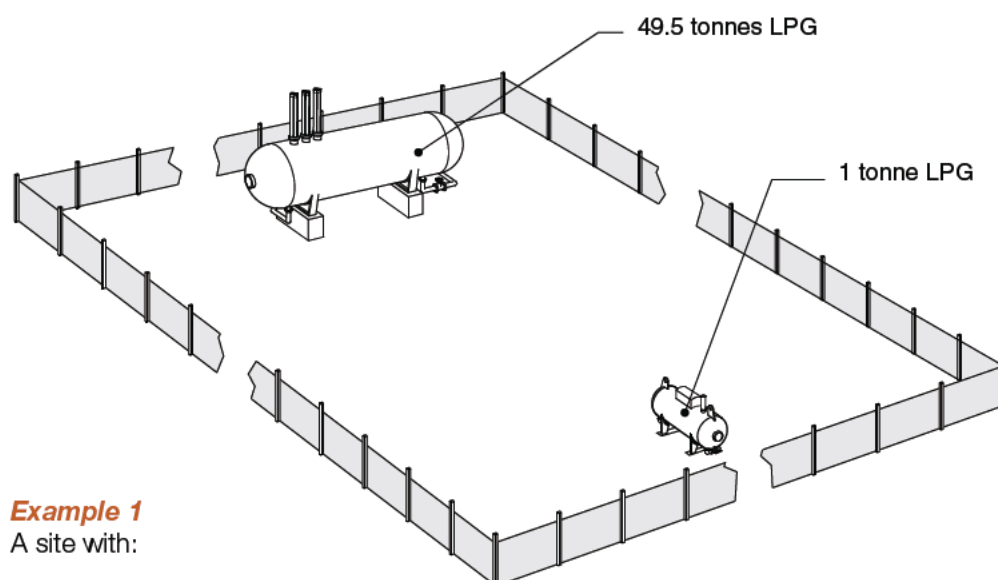
'The quantities to be considered for the application of these Regulations are the maximum quantities which are present or are likely to be present at any one time. Dangerous substances present at an establishment only in quantities equal to or less than 2% of the relevant qualifying quantity must be 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 at that establishment.'

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;
- (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;
- (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.



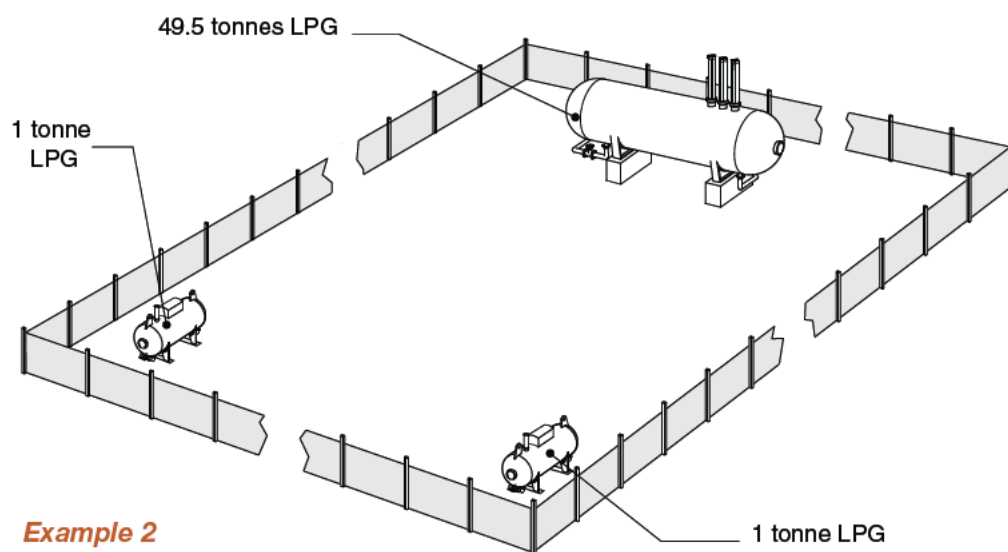
Example 1

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (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.



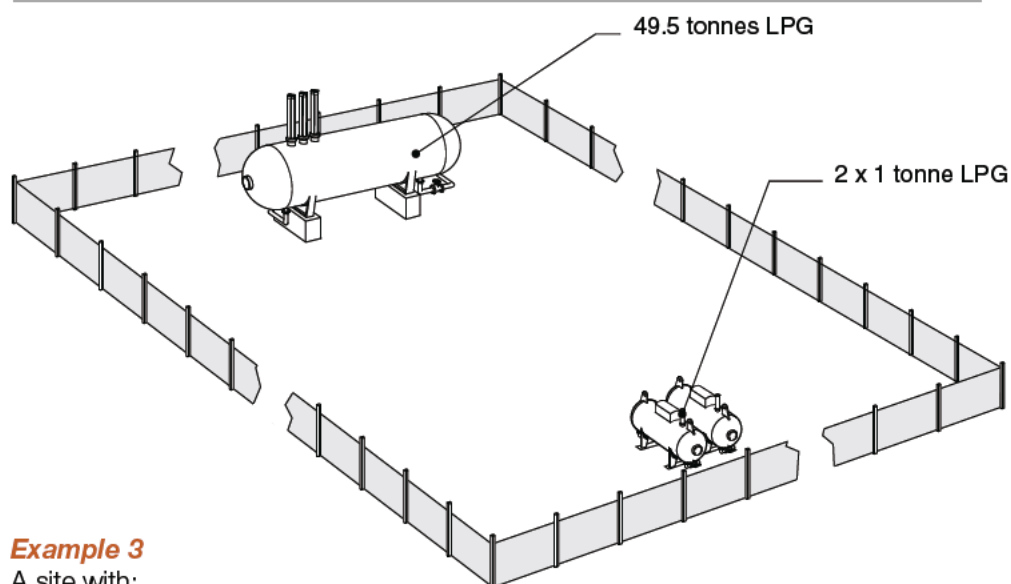
Example 2

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (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.



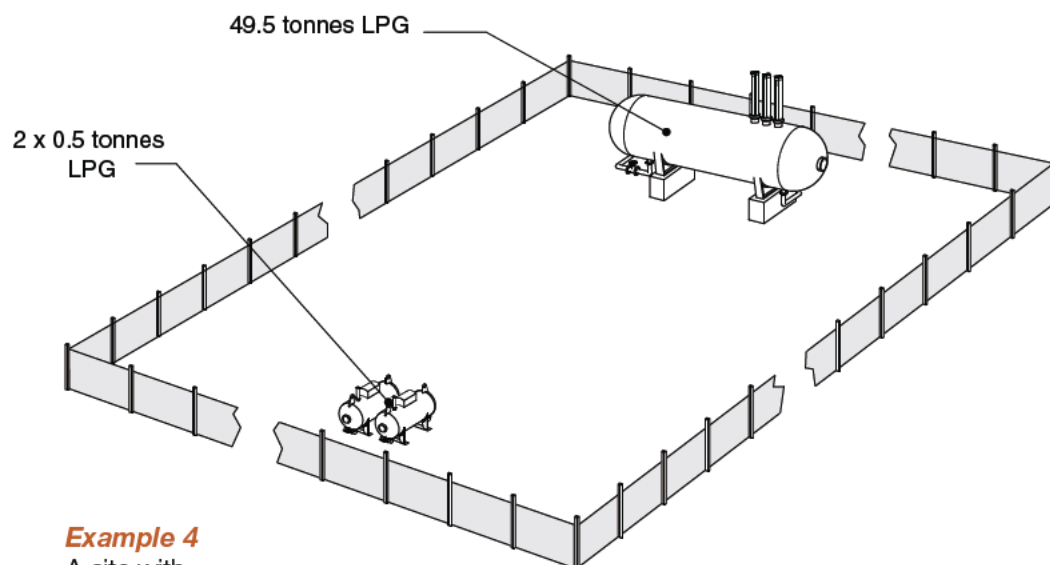
Example 3

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (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.



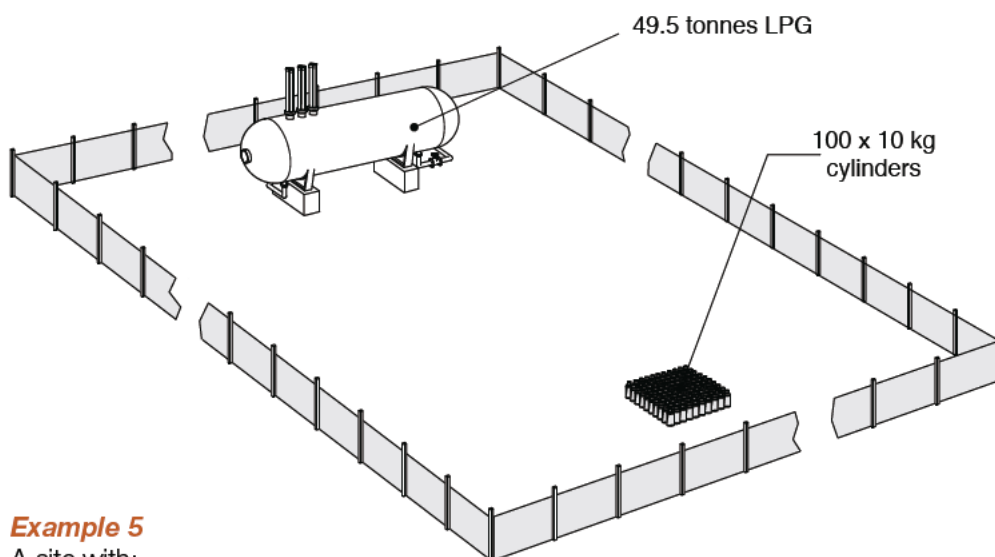
Example 4

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (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.



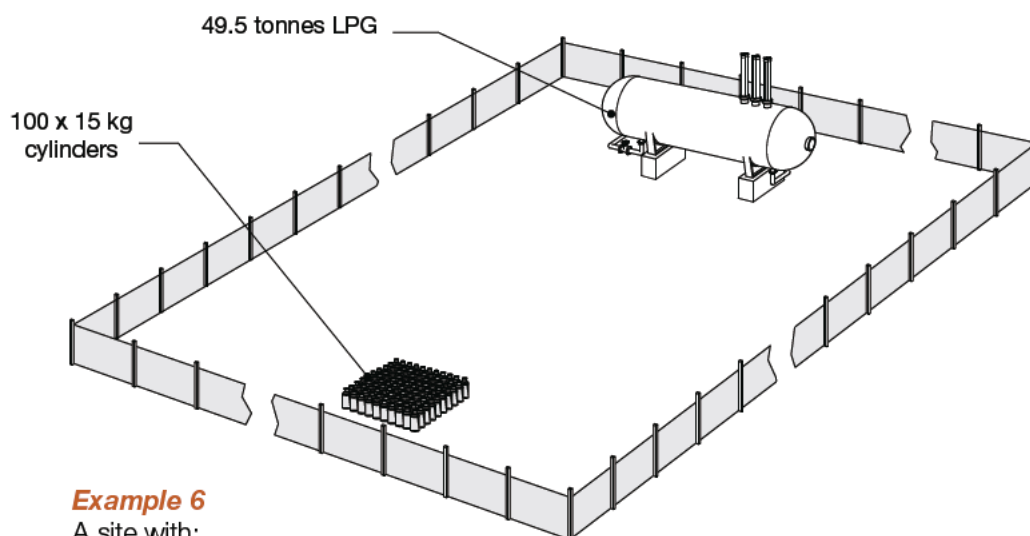
Example 5

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (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.



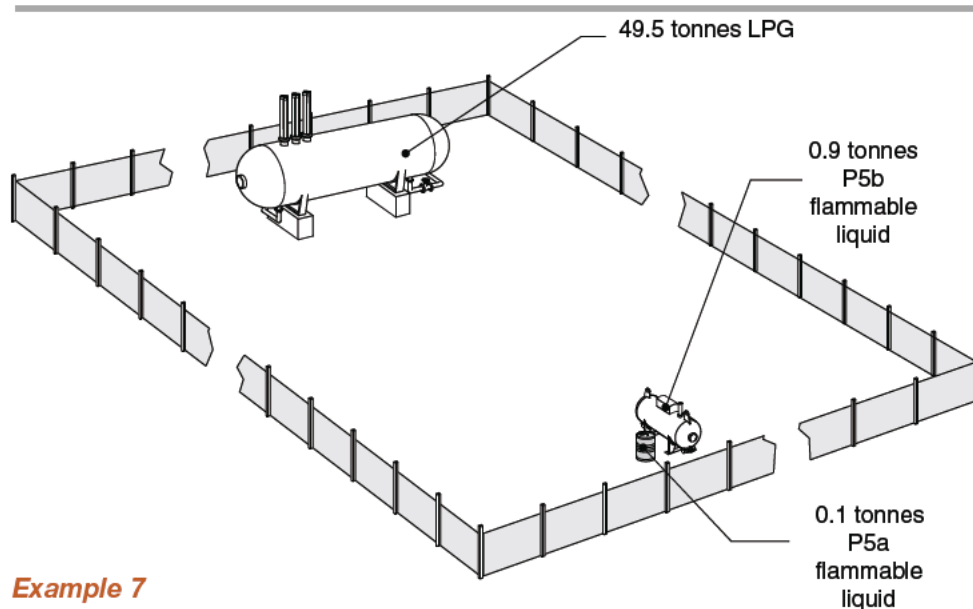
Example 6

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (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.



Example 7

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (b) a tank containing 0.9 tonnes of flammable liquid meeting P5b hazard requirements (lower-tier threshold 50 tonnes);
- (c) a tank containing 0.1 tonnes of flammable liquid meeting P5a hazard requirements (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:

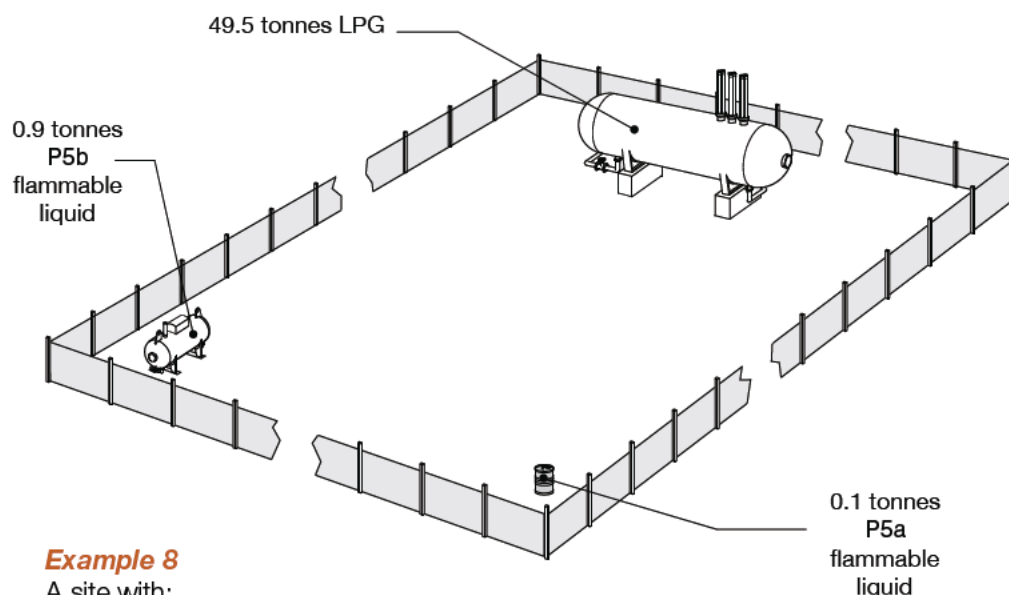
$$\frac{0.9}{50} + \frac{0.1}{10} = 0.018 + 0.01 = 1.8\% + 1.0\% = 2.8\%$$

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.



Example 8

A site with:

- (a) a large tank containing 49.5 tonnes of LPG;
- (b) a tank containing 0.9 tonnes of flammable liquid meeting P5b hazard requirements (lower-tier threshold 50 tonnes);
- (c) a tank containing 0.1 tonnes of flammable liquid meeting P5a hazard requirements (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.

APPENDIX 3 Summary of main COMAH duties on operators from 1 June 2015

This summary table covers movement in and out of the scope of COMAH or between tiers as well as the establishment staying as it is. It is not comprehensive; there will be some changes within tier that have resulting duties that are explained elsewhere in the guidance.

Scenario for establishment from 1 June 2015	Regulation 3 Date COMAH applies	Regulation 6 Notifications	Regulation 7 MAPP	Regulation 9 Safety reports	Regulation 12 Internal emergency	Regulations 17 & 18 Public information
Establishment stays at the same tier						
Lower tier stays lower tier Existing establishment	3(1) 1 June 2015	6(4) Notification to be sent by 1 June 2016	7(3)(b) MAPP to be prepared by 1 June 2016 unless 7(4) applies	n/a	n/a	17(5)(a)(i) Information to be provided to competent authority
Top tier stays upper tier Existing establishment	3(1) 1 June 2015	6(4) Notification to be sent by 1 June 2016	7(3)(b) MAPP to be prepared by 1 June 2016 as a specific document within safety report unless 7(4) applies	See guidance at 9(2)(b), 9(4) & 9(6)	12(2)(b) Plan to be prepared by 1 June 2016 unless 12(3) applies	17(5)(a)(i) Information to be provided to competent authority 18(1) & (6) PIZ information to be sent every 5 years or after 18(5) review
New to COMAH – new construction or first time operation						
Proposed construction/first time operation of new lower-tier establishment New establishment	3(1) Date construction/operation of establishment starts	6(1) & 6(2) Pre-construction/operation notifications to be sent within reasonable time before start of construction/operation	7(3)(a)(i) MAPP to be prepared a reasonable time before construction or operation	n/a	n/a	17(5)(a)(i) Information to be provided to competent authority
Proposed construction/first time operation of new upper-tier establishment New establishment	3(1) Date construction/operation of establishment starts	6(1) & 6(2) Pre-construction/operation notifications to be sent within reasonable time before start of construction/operation	7(3)(a)(i) MAPP to be prepared a reasonable time before construction or operation as a specific document within safety report	9(2)(a)(i) Pre-construction report to be sent within a reasonable time before start of construction 9(2)(a)(ii) Pre-operation report to be sent within a reasonable time before start of operation	12(2)(a) Plan to be prepared within a reasonable time before operation starts	17(5)(a)(i) Information to be provided to competent authority 18(1) & (6) PIZ information to be sent every 5 years or after 18(5) review

Scenario for establishment from 1 June 2015	Regulation 3 Date COMAH applies	Regulation 6 Notifications	Regulation 7 MAPP	Regulation 9 Safety reports	Regulation 12 Internal emergency	Regulations 17 & 18 Public information
New to COMAH at lower tier due to:						
Increase in quantity of dangerous substances New establishment	3(1) Date of increase is date of start of operation (ref 2(4))	6(2) Pre-operation notification to be sent within reasonable time before start of operation	7(3)(a)(i) MAPP to be prepared a reasonable time before operation	n/a	n/a	17(5)(a)(i) Information to be provided to competent authority
Change in dangerous substances classification Other establishment	3(1) Date of change is date of start of operation	6(5) Notification to be sent within one year of regulation applying	7(3)(c) MAPP to be prepared within one year of becoming an other establishment	n/a	n/a	17(5)(a)(i) Information to be provided to competent authority
New to COMAH at upper tier due to:						
Increase in quantity of dangerous substances New establishment	3(1) Date of increase is date of start of operation (ref 2(4))	6(2) Pre-operation notification to be sent within reasonable time before start of operation	7(3)(a)(ii) MAPP to be prepared as a specific document within safety report a reasonable time prior to change in inventory	9(2)(a)(ii) Pre-operation report to be sent within a reasonable time before change in inventory	12(2)(a) Plan to be prepared within a reasonable time before change in inventory	17(5)(a)(i) Information to be provided to competent authority 18(1) & (6) PIZ information to be sent every 5 years or after 18(5) review
Change in dangerous substances classification Other establishment	3(1) Date of increase is date of start of operation	6(5) Notification to be sent within one year of becoming an other establishment	7(3)(c) MAPP to be prepared as a specific document in safety report within one year of becoming an other establishment	9(2)(c) Report to be sent within two years of becoming an other establishment	12(2)(c) Plan to be prepared within two years of becoming an other establishment	17(5)(a)(i) Information to be provided to competent authority 18(1) & (6) PIZ information to be sent every 5 years or after 18(5) review

Scenario for establishment from 1 June 2015	Regulation 3 Date COMAH applies	Regulation 6 Notifications	Regulation 7 MAPP	Regulation 9 Safety reports	Regulation 12 Internal emergency	Regulations 17 & 18 Public information
Lower-tier establishment moves to upper tier due to:						
Increase in quantity of dangerous substances New establishment	3(1) Date of increase is date of start of operation (ref 2(4))	6(2) Notification to be sent within reasonable time before date of increase	7(3)(a)(ii) MAPP to be prepared as a specific document within safety report a reasonable time prior to change in inventory unless 7(4) applies	9(2)(a)(ii) Pre-operation report to be sent within a reasonable time before date of increase	12(2)(a) Plan to be prepared before date of increase	17(5)(a)(i) Information to be provided to competent authority 18(1) & (6) PIZ information to be sent every 5 years or after 18(5) review
Change in dangerous substances classification Other establishment	3(1) Date of change	6(5) Notification to be sent within one year of becoming an other establishment	7(3)(c) MAPP to be prepared as a specific document in safety report within one year of becoming an other establishment unless 7(4) applies	9(2)(c) Report to be sent within two years of becoming an other establishment	12(2)(c) Plan to be prepared within two years of becoming an other establishment	17(5)(a)(i) Information to be provided to competent authority 18(1) & (6) PIZ information to be sent every 5 years or after 18(5) review
Upper-tier establishment moves to lower tier due to:						
Decrease in quantity of dangerous substances New establishment	3(1) Date of decrease is date of start of operation (ref 2(4))	6(2) Notification to be sent within reasonable time before date of decrease	7(3)(a) MAPP to be prepared a reasonable time before date of decrease unless 7(4) applies	n/a	n/a	17(5)(a)(i) Information to be provided to competent authority
Change in dangerous substances classification Other establishment	3(1) Date of change	6(5) Notification to be sent within one year of becoming an other establishment	7(3)(c) MAPP to be prepared within one year of date of change unless 7(4) applies	n/a	n/a	17(5)(a)(i) Information to be provided to competent authority
Establishment moves out of the scope of COMAH						
Lower-tier establishment closes or decommissions	n/a	6(6)(d) Notification to be sent in advance	n/a	n/a	n/a	n/a
Upper-tier establishment closes or decommissions	n/a	6(6)(d) Notification to be sent in advance	n/a	n/a	n/a	n/a

References and further reading

References

- 1 *Civil Contingencies Act 2004 (c36)* The Stationery Office 2004
- 2 *Environmental risk tolerability for COMAH establishments* (included in resources and guidance developed by the Chemical and Downstream Industries Forum (CDOIF)) 2013 www.hse.gov.uk/aboutus/meetings/committees/cif/resources.htm
- 3 *Explosives Regulations 2014. Safety provisions. Guidance on Regulations* L150 HSE Books 2014 ISBN 978 0 7176 6551 8
www.hse.gov.uk/pubns/books/l150.htm
- 4 *Preparing and planning for emergencies: the National Resilience Capabilities Programme* Cabinet Office 2013
www.gov.uk/preparation-and-planning-for-emergencies-the-capabilities-programme
- 5 *Guidance on the application of the CLP criteria* European Chemicals Agency (ECHA) 2013 echa.europa.eu/documents/10162/13562/clp_en.pdf

Further reading

The CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
www.hse.gov.uk/chemical-classification/legal/clp-regulation.htm

ECHA guidance on CLP

A guide to the Pipelines Safety Regulations 1996. Guidance on Regulations L82 HSE Books 1996 ISBN 978 0 7176 1182 9 www.hse.gov.uk/pubns/books/l82.htm

Environmental Permitting (England and Wales) Regulations 2010 SI 2010/675
The Stationery Office www.legislation.gov.uk

Pollution Prevention and Control (Scotland) Regulations 2012 SSI 2012/360
The Stationery Office www.legislation.gov.uk

Human factors www.hse.gov.uk/humanfactors/

Management of Health and Safety at Work Regulations 1999 SI 1999/3242
The Stationery Office www.legislation.gov.uk

Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 SI 2009/716 The Stationery Office www.legislation.gov.uk

The Environmental Information Regulations 2004 (covering England and Wales)
SI 2004/3391 The Stationery Office www.legislation.gov.uk

The Environmental Information (Scotland) Regulations 2004 SSI 2004/520
The Stationery Office www.legislation.gov.uk

Public information www.hse.gov.uk/comah/

Health and Safety (Enforcing Authority) Regulations SI 1998/494 The Stationery
Office www.legislation.gov.uk

Registration, Evaluation, Authorisation & Restriction of Chemicals (REACH)
www.hse.gov.uk/reach/

The European Major Accident Reporting System (eMARS)


COMAH: Charging activities www.hse.gov.uk/charging/index.htm

Cost recovery for COMAH activities: A guide
www.hse.gov.uk/charging/comahcharg/comahch1.htm

The UNECE Convention on access to information, public participation in decision-
making and access to justice in environmental matters Aarhus 1998


Carriage of dangerous goods (CDG) www.hse.gov.uk/cdg/

Hazardous waste (European Waste Catalogue)
<https://www.gov.uk/how-to-classify-different-types-of-waste/overview>

Further information

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