



**EUROPEAN COMMISSION**  
DIRECTORATE GENERAL  
JOINT RESEARCH CENTRE  
Institute for the Protection and Security of the Citizen  
Traceability and Vulnerability Assessment Unit



### **Council Directive 96/82/EC as amended by Council Directive 2003/105/EC – Agreed questions and answers**

The following questions, concerning the detailed interpretation of points in Directive 96/82/EC as amended by Directive 2003/105/EC, have been put to the services of the European Commission by the National Authorities of the Member States. The answers given here by the Commission under “suggested interpretation” have been agreed with the representatives of the Member States, through the Committee of Competent Authorities for the Implementation of Directive 96/82/EC.

The guidance given here reflects the interpretation of the Directive, as agreed by the European Commission and the Member States. However it is not mandatory, and does not preclude other reasonable interpretations of the requirements of the Directive.

*This is the consolidated version of end-2008 of the questions and answers as adopted by the Committee of Competent Authorities.*

Ref. N°	QUESTION	SUGGESTED INTERPRETATION
A-5	<p><u>Definition of dangerous substance</u></p> <p>The definition for dangerous substance given in Article 3.4 of the Directive includes “.... <u>and</u> present as a raw material, product, by-product, residue or intermediate...”. A multinational company has made an interpretation that solvents involved in a chemical process are excluded because they are not covered by the above list. Are solvents covered by the Directive?</p>	<p>Yes, solvents are covered by the Directive. The text “...<i>raw material, product, by-product, residue or intermediate, etc.</i>” is intended as a comprehensive list covering all cases of chemicals present at an establishment. This intent is made more clear in recital (11) of the Directive, as given below :</p> <p><i>“Whereas use of a list specifying certain installations while excluding others with identical hazards is not an appropriate practice, and may allow potential sources of major accidents to escape regulation; whereas the scope of Directive 82/501/EEC must be altered to make the provisions applicable to all establishments where dangerous substances are present in sufficiently large quantities to create a major-accident hazard.”</i></p> <p>However, it can be noted that there may be some cases which, although there could be a theoretical argument to suggest that they could fit within the scope of the Directive, are clearly not intended to be covered e.g. asbestos used in building materials for the construction of buildings.</p>

A-6	<p><u>Demolition Activities</u></p> <p>In what respect does the Directive apply to the demolition of a building (e.g. power station) or means of transport (e.g. railway carriage) containing asbestos, where the asbestos had been used in materials for the construction of the structure or means of transport concerned?</p> <p>Would the removal of asbestos board used in buildings or means of transport be within the scope of the Directive?</p>	<p>No; the agreed interpretation of “dangerous substances” notes that <i>there may be some cases which, although there could be a theoretical argument to suggest that they could fit within the scope of the Directive, are clearly not intended to be covered e.g. asbestos used in building materials for the construction of buildings.</i></p> <p>A building in demolition would not normally come under Seveso II, nor would a railway carriage in demolition. Similarly, the removal of asbestos board used in buildings or means of transport is not within the scope of the Directive.</p> <p>However a site whose activity was the demolition of railway carriages containing toxic materials could do so; in general the materials concerned would be treated in the same way as waste.</p>
A-10	<p><u>Labelling of dangerous substances</u></p> <p>Does the Directive apply to substances which are <u>labelled</u> as toxic but not classified as toxic (e.g. carcinogens, mutagens, teratogens)?</p>	<p>No, it is the <u>classification</u> under Directive 67/548/EC (as amended and updated) which matters - unless of course the substances are named in Part I of Annex I.</p>
A-15	<p><u>Powders</u></p> <p>Are powders covered by the Directive?</p>	<p>Annex I of the Directive does not distinguish between physical characteristics of the substances covered except where clearly stated. Therefore powders are covered by the Directive in so far as they are a powder of a named substance under Part 1 of Annex 1 or are classified according to the categories listed in Part 2 of Annex 2.</p>
A-25	<p><u>Ionizing radiation</u></p> <p>With reference to Article 4 (b) relating to the exclusion of hazards created by ionizing radiation, does the Directive apply to nuclear materials which are also toxic?</p>	<p>The exclusion of ‘hazards created by ionizing radiation’ is an acknowledgement of the existing comprehensive arrangements within the Member States for dealing with nuclear materials. Given this situation, it is not considered necessary to apply Seveso II to ‘toxic’ nuclear materials at the same time as nuclear legislation, as this would give rise to unnecessary duplication and confusion. However, dangerous substances (as defined within Seveso II) which do not pose a hazard created by ionizing radiation are covered by the Seveso II Directive even if they are within a nuclear establishment.</p>
A-30	<p><u>No entry in Column 2</u></p> <p>For Part 1 substances which have no entry in column 2, does this mean that articles 6 and 9 are applied only once the value in column 3 is reached, or are articles 6 and 7 applicable as soon as there is any of the substance present? If the first is correct, why does sulphur dichloride have the same threshold in columns 2 and 3?</p>	<p>The first interpretation is correct: articles 6 and 9 apply together when the column 3 threshold is reached. (The sulphur dichloride column 2 entry has no effect, as sulphur dichloride is being treated like the substances (e.g. methylisocyanate) which have no column 2 entry.)</p>

A - 35	<p><u>2% Rule</u></p> <p>Can the “2% rule” (Point 4 in the introduction to Annex I) be applied to a substance in one location at an establishment when the same substance is present elsewhere at quantities greater than 2%? (This question addresses the scope of the word ‘only’ in the Note: “Dangerous substances present at an establishment <i>only</i> in quantities equal to or less than 2 %...”)</p>	<p>Yes. (The word ‘only’ is intended to refer to the quantities under consideration, not the total amount of substance.)</p> <p>However, it is important to note that there is a second condition for the “2% rule” to be applied, i.e. that the substance in question cannot act as an initiator of a major accident elsewhere on the site.</p>
A - 36	<p><u>2% rule - Summation rule</u></p> <p>For the application of the summation rule, how should the authorities treat the case of a substance which has two classifications, and is present in quantities greater than 2% of one of its qualifying thresholds but less than 2% of the other? Clearly, the summation rule must be applied for the classification for which the quantity exceeds 2%, but should it also be applied in the case when the quantity is less than 2% (assuming the condition that the substance cannot act as an initiator of a major accident elsewhere is satisfied)?</p>	<p>According to note 4 to Annex I Part 1, this question only arises if the substance in question is in a location such that it cannot act as an initiator of a major accident elsewhere on the site. Provided that condition is satisfied, the answer to the question is “no”. The substance’s presence should only count towards the summation rule for the classification for which its quantity exceeds 2% of the qualifying quantity.</p> <p>Of course, if the establishment comes under the Directive, then, when the safety report is being drawn up, the true hazard presented by the substance must be evaluated.</p>
A - 37	<p><u>Contaminated Soil</u></p> <p>How should contaminated soil be treated?</p>	<p>Note 1 to Annex I Part 2 states that in the case of “substances and preparations which are not classified ... according to any of the above Directives but ... which possess ... equivalent properties in terms of major-accident potential, the procedures for provisional classification shall be followed...” Therefore where contaminated soil is stored or processed on a site, it should be treated on the basis of its properties as a preparation. However, soil which is in the ground does not bring an establishment under the Directive.</p> <p>If the classification cannot be carried out by this procedure (meaning the referenced directives in Note 1 to Annex 1 Part 2) other relevant sources of information may be used e.g. information concerning the origin of the waste, practical experience, testing, transport classification or classification according to the European waste legislation.</p>
A - 38	<p><u>Chromic (VI) Trioxide</u></p> <p>Chromic (VI) Trioxide is susceptible to change from classification T to T+ following the decision of the 29th adaptation of technical progress of directive 67/548. Some establishments handling this very toxic substance will be affected by the SEVESO Directive when they have more than the qualifying quantities, without a change of the risk of a major accident. Besides, the risk in question is a risk of accidental release which can be controlled by means of retention already in place. Is there really a need to submit a safety report in these cases</p>	<p>Chromic (VI) Trioxide (CrO<sub>3</sub>, also Chromium (VI) Oxide or Chromic Anhydride) has recently been reclassified by the ECB to “very toxic” with the R-phrase 26 (inhalation). According to the introductory notes of annex I of the Seveso II – Directive this means that any preparation containing 7 % or more of this substance has also these properties. Any operator with an establishment storing or handling more than 5 tons of such a preparation falls under the scope and exceeding 20 tons has to submit a safety report. The Directive is clear in this respect and leaves no other option. However, if the establishment previously fell under Seveso II and had already submitted a safety report, it is a case-by-case decision if the reclassification requires a new report; it is also up to the operator to apply for the use of Article 9(6).</p>

A-40	<p><u>Aerosols</u></p> <p>How should typical propellants / solvents used in aerosol containers, such as propane, butane and dimethylether, be classified when combined in preparations with water, alcohol and other ingredients which change their flammability characteristics? [Typically the preparation consists of liquid solvents and compressed gases in a 1 or 2 phase system within the can, which separates into propellant phase and active liquid ingredients when expelled. The extremely flammable gas contents vary, but in many cases will be around 45 per cent.] More fundamentally, it seems that the test methods for classification according to 67/548/EEC do not work for aerosols. It appears that this may result in 'labelling' as extremely flammable on the grounds that the test methods do not show otherwise. However a decision on appropriate 'classification' in the context of Seveso II is needed, noting that valid test methods and results may not be available.</p>	<p>The fact that the products of an aerosol container may have special properties when released normally is not relevant to a major accident: in an accident the hazard is that the can's integrity be broken and there be therefore a sudden release of both contents and propellant.</p> <p>The difficulty in classifying aerosol sprays is therefore not relevant.</p> <p>Bearing in mind the mechanism of release in the event of a major accident, an aerosol container should be considered as having two substances - propellant and contents - the quantities of which are then summed according to the summation rule in Note 4 of Annex I Part 2.</p>
A-41	<p><u>Aerosols</u></p> <p>Does the summation rule given in Note 4(a) to Part 2 of Annex 1 apply for adding liquefied extremely flammable gases (e.g. when used as aerosol propellants) from Part 1 to substances which are 'extremely flammable' under Part 2 ? [It appears that the text in note 3(c) (2) referring to '<i>... excluding liquefied extremely flammable gases... referred to in Part 1</i>' can be misinterpreted to mean that the rule may not apply.]</p>	<p>The summation rule does apply.</p>
A - 48	<p><u>Classification of substances toxic after long-term exposure (R48)</u></p> <p>How should substances with risk phrase R48 be treated? R48 means that the substance is only considered toxic in the event of long-term exposure.</p>	<p>Risk phrase R 48 refers to repeated or long-term exposure, i.e. repeated exposure over long periods (typically, months or years). This type of exposure is out of consideration for major accidents, which deal only with short exposure of the order of some hours or maximum days. Therefore the R48 substances should not be considered in the context of the Seveso Directive.</p>

A-55	<p><u>Definition of ‘extremely flammable’</u></p> <p>With reference to Note 3(c)(3) of Part 2 of Annex I, are all liquids kept at temperatures above their boiling point to be considered as “extremely flammable”, or only those with a flash point lower than 21°C ?</p>	<p>This phrase is not intended to apply to all liquids, but only those which are already classified as “flammable” or “highly flammable”, which become classified as “extremely flammable” when kept above their boiling point.</p>
A-56	<p><u>Flammable Liquids</u></p> <p>Liquid flammable substances <i>and preparations</i> maintained at elevated temperatures can be sorted into categories 7a or 8 of Annex I, Part 2; what are the decisive factors?</p>	<p>Category 8 of Annex I Part 2 relates to note 3(c)(3), to flammable and highly flammable liquid substances and preparations maintained at a temperature above its boiling point; this will be the most likely case.</p> <p>Category 7a relates to note 3(b) (1) second indent and contains those highly flammable substances and preparations that are kept at elevated temperature and/or pressure but in any case below atmospheric pressure boiling point of the substance. As soon as the atmospheric pressure boiling point is exceeded category 8 applies.</p> <p>Please note that category 7a applies only in situations where the change in processing conditions, such as elevated temperature/pressure, “may create a major accident hazard”.</p>
A-60	<p><u>Flammable Solids</u></p> <p>Are flammable solids covered by the Directive?</p> <p>Note 3 to Annex 1, Part 2 refers to flammable, highly flammable and extremely flammable substances that meet the definitions given therein so that there may be substances which would be classified as flammable, highly flammable or extremely flammable by the dangerous substances or preparations directives but because they do not meet the definitions in Note 3 would be outside the scope of Seveso II.</p>	<p>No.</p>
A - 61	<p><u>Category 10</u></p> <p>Category 10 is defined as: Any Classification <b>not covered by those given above</b> in combination with risk phrases: (i) R14: ‘Reacts violently with water’ (including R14/15) (ii) R29: ‘in contact with water, liberates toxic gas’ Does this mean that category 10 is never applied for dangerous substances that can be classified into category 1 to 9?</p>	<p>Yes.</p> <p>For example: a substance (like acetyl chloride) with risk phrases R11 (category 7b – 5.000/50.000 tonnes) and R14 (category 10i – 100/500 tonnes) has to be classified in category 7b.</p> <p>Although this leads to a situation that a substance like acetyl chloride with risk phrases R11 (category 7b – 5.000/50.000 tonnes) and R14 (category 10i – 100/500 tonnes) has to be classified in the category with the higher threshold, the legal text makes category 10 and categories 1 – 9 mutually exclusive</p>

A - 70	<p><u>Summation rule</u></p> <p>a) Does the summation rule apply when an establishment has several part 1 substances? The specific query arose from a company who hold quantities of both ethylene oxide and propylene oxide which are just below the qualifying quantities given in Part 1 for each substance. (e.g. 4 tonnes of each). The company has stated that there is no mention of the summation rule applying to part 1 substances in note 4 to Part 2 of Annex 1 and therefore the summation rule does not apply. Is this correct?</p> <p>b) A similar question under this heading concerns the carcinogens named in Part I: does a site holding a total of more than 2 tons of them in total, but less than 2 tons of each individual substance, thus become a top-tier site?</p> <p>c) When the Part 1 / Part 2 summation rule is applied, which thresholds should be taken for the Part 1 substances - those for each of the substances involved, or that for the category? Also, when a Part 1 substance is being added to Part 2 substances, <i>how</i> should the summation be carried out? Consider the case of an establishment with:</p> <p>x kg. of chlorine, which is classified both toxic and “R50”, and is an Annex I Part 1 named substance, with a lower threshold of 10 tonnes;  y kg. of unnamed toxic substances;  z kg. of unnamed “R50” substances.</p> <p>Which formula should be used for the lower-tier threshold:  i) <math>x/10000 + y/50000 &gt; 1</math> or <math>x/10000 + z/200000 &gt; 1</math>?  ii) <math>(x + y)/50000 &gt; 1</math> or <math>(x+z/200000) &gt; 1</math>?</p>	<p>a) This is not a correct interpretation of the Directive. The fact that a substance is listed in Part 1 does not preclude its “<i>classification</i>” under Part 2 for the application of the summation rule.  Taking the example of ethylene oxide and propylene oxide:  Ethylene oxide is in Part 1 and, reading Note 4 (a) of Part 2, propylene oxide is a “<i>substance having the same classification from Part 2</i>”, therefore the rule applies using the quantities set out in Part 1 for both substances when making the addition.</p> <p>b) Yes: the carcinogens are listed as one item in Annex I Part 1, and therefore should be considered as one item.</p> <p>c) The thresholds to be used are those for the substance concerned, not for the category; and for categories 1 and 2 and category 9 it must be checked separately if the sum of fractions is equal or bigger than 1, in other words, formula (i). (A similar calculation may of course have to be carried out under categories 3-8).</p>
A - 76	<p><u>Summation Rule</u></p> <p>Category 10 in Annex I Part 2 contains two subcategories. Should these be considered together for the application of the summation rule?</p>	<p>No. Substances with classification R14 should be summed only among themselves; and substances with classification R29 should be summed only among themselves. Because the hazard of these two subcategories is fundamentally distinct, there is no reason to sum R14 and R29 together.</p>

A - 78	<p><u>Summation Rule</u></p> <p>To what category do polichlorodibenzofurans and polychlorodibenzodioxins belong for the purposes of the summation rule?</p>	<p>To the group “1 and 2” - in that the risks of exposure are linked to short- or long-term toxic effects.</p>
A - 84	<p><u>Fuel Additives:</u></p> <p>How shall fuel additives which contain substantial amounts of solvent naphtha,, diesel or similar substances be regarded ? Usually such fuel additives are preparations of solvents with substances like ethylene-vinyl acetate copolymer or blends of solvents with various other hydrocarbon components classified R 51/53, with a proportion of normally more than 60 % of solvent. Shall the preparation be classified R 51/53 because of the solvent or diesel amount or can it be grouped into “petroleum products”?</p>	<p>Tables 1 - 4 of annex III of Directive 1999/45 contain percentage thresholds for preparations, which indicate if a mixture is “dangerous for the environment”. If the preparation contains <math>\geq 2,5</math> % of another R 50 – 53 substance the whole mixture is classified R 51/53; the same applies if the R 51/53 content is <math>\geq 25</math> %.</p> <p>In the case of a mixture as described in the question both fractions could be have an R 51/53 (or even R 50 – 53) phrase., so in principle the whole preparation would need this classification. But as the legislator’s intent was to create a special group of named substances being aware that this means an increased threshold it is justified to apply this reasoning also to the question of concern. If therefore a mixture as described would be classified by its content of a petroleum product, it shall be regarded as a petroleum product altogether (thus having no R 51/53 phrase). Only if the qualifying fraction of the non-petroleum product exceeds 25 %, the whole mixture shall be grouped into category 9.</p>
A - 85	<p><u>Petroleum Products</u></p> <p>How is the group of named substances “petroleum products” defined? Is shale oil a petroleum product?</p>	<p>The group of named substances “petroleum products” at first is defined by three subgroups:</p> <ul style="list-style-type: none"> <li>(a) gasolines and naphthas,</li> <li>(b) kerosenes (including jet fuels),</li> <li>(c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)</li> </ul> <p>“Petroleum” in its meaning in English language is a synonym for “crude oil” which indicates that only products originating from crude oil are concerned. Shale oil therefore is no petroleum product. It has to be classified by its flash point or properties dangerous for the environment either in categories 6, 7 or 9.</p> <p>Petroleum products may be defined by their production conditions, for example:</p> <ul style="list-style-type: none"> <li>- gasoline and naphtha: boiling range of <math>-20^{\circ}\text{C} - 250^{\circ}\text{C}</math> and C-range of C4-C12</li> <li>- kerosene: boiling range of <math>70^{\circ}\text{C} - 290^{\circ}\text{C}</math> and C-range of C7 – C17</li> <li>- gas oils: boiling range of <math>150^{\circ}\text{C} - 500^{\circ}\text{C}</math> and a C-range of C9 – C25</li> </ul> <p>More information may be taken from the CONCAWE reports 92/103 (gasoline), 94/106 (kerosene) and 95/107 (gas oils).</p> <p>If the definition by distillation ranges is not known or not feasible to identify, the UN/ADR codes can serve as information source, as they define as follows:</p> <ul style="list-style-type: none"> <li>- 1202 gas oils and diesel</li> <li>- 1203 gasoline</li> <li>- 1223 kerosene</li> </ul> <p>(1288 is the UN/ADR code for shale oil).</p>

A - 86	<u>Petroleum Products</u> Should pentane be counted under this heading?	No
A - 87	<u>Additives to petroleum products</u> If the final use of a substance is to be added, in small percentages, to automotive petrol, does that mean that the substance should be regarded as being assimilated to the category “automotive petrol and other petroleum spirits”.	No. The substance must be classed on the basis of its intrinsic properties; its final use is not relevant.
A - 88	<u>Crude Oil</u> How should crude oil be considered?	Crude oil as defined by CAS-Nr. 8002-05-9 and officially assigned risk phrases R 45 (may cause cancer) and R 53 (may cause long-term adverse effects in the aquatic environment) is not considered falling under the scope of the Directive. However, crude oil is a sample name for a group of hydrocarbon mixtures with a variety of properties and may have substantial flammable portions. But it falls not under the named substance group of “petroleum products” as no one of the listings under a) – c) applies for crude oil (the named substance group “automotive and petroleum spirits” does no more exist after the amendment of the Directive)  If a special crude oil possesses a property as defined by one of the categories on annex I, part 2, it should be treated on the basis of this property.
A - 89	<u>Fuel Oil</u> How should fuel oil be considered? Should there be a distinction between high sulfur (R 51/53) and low sulfur (R52/53) fuel oil?  Is bunker oil also fuel oil?	Fuel oils have to be considered by the named substance group of petroleum products (gas oils including diesel fuels, home heating oils and gas oils blending streams); gas oil is a sample definition for all hydrocarbons as derived from boiling fractions of petroleum processing in a range of about 170° C to 400° C (see also A-85). The sulphur content was a relevant issue in Directive 96/82/EC, but will no longer be relevant in the amended directive as fuel oils belongs to the named group of petroleum products in 2003/105/EC.  “Bunker oil” is a term for fuel oil used for ships, where the decisive properties must be clarified. Heavy fuel oils, such as those that require preheating, are not covered by the definition of “gas oils”.
A - 90	<u>Nickel compounds</u> What does the term “nickel compounds in inhalable powder form (nickel monoxide, nickel dioxide, nickel sulphide, trinickel disulphide, dinickel trioxide)” (Annex I Part 1) cover? Does it cover nickel metal? Are the compounds named in brackets intended to be examples, or an exhaustive list?	Nickel metal is not covered. The list is exhaustive.
A-95	<u>Phosphorus</u>	Yes, white phosphorus is classified within the category ‘very toxic’ in Part 2 of Annex I.

	Does the Directive cover phosphorus?	
A - 101	<p><u>Town gas</u></p> <p>Does town gas come under the category “liquefied extremely flammable gases (including LPG) and natural gas”?</p>	No. Unless it is liquefied, town gas should be treated as an extremely flammable gas (Annex I Part 2 Cat. 8).
A - 102	<p><u>Potassium Nitrate</u></p> <p>In the amendment directive, the named group of potassium nitrate is defined in notes 5 and 6 as “composite potassium-nitrate based fertilisers” without any further limits in terms of hazard potential or without referring to certain types of fertilisers defined in Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilisers.</p> <p>Does this mean that all composite potassium-nitrate based fertilisers come into the named group even if the fertiliser does not have any dangerous properties?</p>	No; the named group only applies to those composite potassium-nitrate based fertilisers which have the same hazardous properties as pure potassium nitrate, regarding the physical conditions listed in note 5 and 6 (prilled/granular or crystalline form).
A - 105	<p><u>Methanol</u></p> <p>How should solutions of methanol be treated? Note 2 to Annex I stated that “... preparations shall be treated in the same way as pure substances provided they remain within concentration limits set according to their properties...”. Since methanol has different concentration limits for its different properties, (acutely toxic, chronically toxic, and flammable), it is not clear which concentration limit applies.</p>	<p>The concentration limit, which is used only when determining if the Seveso II Directive applies, is 10%, the lower of the toxic concentration limits. This means that solutions of methanol continue to be treated as methanol so long as the methanol concentration is 10% or more.</p> <p>Any other interpretation would lead to inconsistent results.</p>
A - 111	<p><u>Waste</u></p> <p>Does the Directive cover waste, bearing in mind that it is explicitly excluded from the scope of the new Preparations Directive 99/45/EC</p>	Yes; Note 1 to part 2 of annex I of the Seveso II-Directive makes reference to Directives 67/548/EEC and 1999/45/EC and mentions waste explicitly. Therefore waste is treated on the basis of its properties as a preparation. It is the obligation of an operator to define the classification of this preparation. If the classification cannot be carried out by this procedure (meaning the referenced directives in Note 1 to Annex I Part 2) other relevant sources of information may be used, e.g. information concerning the origin of the waste, practical experience, testing, transport classification or classification according to the European waste legislation.
A - 115	<p><u>Named gas above its boiling point</u></p> <p>If a gaseous substance named in Annex I Part 1 is kept as a liquid above its boiling point, which thresholds apply to it: those given in Annex I Part 1, or those of an extremely flammable liquid (Annex I Part 2 Cat. 8)</p>	The thresholds to be used are those of Annex I Part 1. The substance is still the same substance, and Annex I Part 1 states explicitly that the thresholds of Part 1 take precedence over those of Part 2.

B-1	<p><u>Domino Effect:</u></p> <p>Art. 8 requires that the Member State ensures cooperation and exchange of information between establishments potentially subject to a domino effect. In particular, Article 8.2 (b) refers to ‘emergency plans’ and ‘information for the public’, which are required only for upper-tier establishments. Does this mean that Article 8 does not apply to lower-tier establishments?</p>	<p>Article 8 requires that the Competent Authorities identify establishments or groups of establishments susceptible to a domino effect and includes ALL establishments, not just those covered by Article 9 (upper tier establishments). However, for lower tier establishments, the specific requirements in 8.2(b) relate to COOPERATION in the preparation of emergency plans and information for the public and do not imply a duty on lower tier establishments to draw up emergency plans and to inform the public.</p>
B-2	<p><u>Off-site mitigatory action</u></p> <p>What is meant by Annex IV: <i>Arrangements for providing assistance with off-site mitigatory action</i>?</p>	<p>This could include arrangements for the provision of expertise or the supply of specific equipment to control releases, antidotes, protective clothing....</p>
B-5	<p><u>Short-time application of the Directive</u></p> <p>What should be done about establishments which come under the Directive only for a short period of time, e.g. under 6 months?</p>	<p>The Directive does not contain any provisions to take account of qualifying quantities being exceeded only for a short amount of time and therefore is applicable even for a short time period where qualifying quantities are exceeded. In order to avoid having to re-submit notifications and safety reports, an establishment may therefore wish to fulfil its obligations under the Directive even if subsequently there should be a period when the quantities of substances present could take it below the qualifying quantities for application of the Directive.</p>
B-6	<p><u>“Serious deficiency”</u></p> <p>Under what circumstances should a Prohibition of Use (Art. 17 &amp; Art. 9(4)) be issued? What is meant by “seriously deficient” (Art. 17(1))? In particular, is this appropriate if the failure is a matter of form (e.g. no notification) rather than strictly a matter of safety?</p>	<p>The circumstances justifying prohibition of use, rather than other sanctions, are essentially a matter for Member States’ judgement, in the light of their individual procedures. The text of the Directive states ‘SHALL prohibit’ with respect to serious deficiencies, but ‘MAY prohibit’ for matters of notification, etc. In the second case, the intent is to allow Member States to use a range of measures as appropriate to encourage compliance, but to retain the possibility of prohibition for cases of blatant disregard for the notification, etc. requirements of the Directive.</p>
B-7	<p><u>ILO</u></p> <p>What is the interface between Seveso II and ILO Convention No. 174, especially concerning pipelines and nuclear installations?</p>	<p>Member States who have fully ratified the ILO convention no 174 will be expected to implement measures in accordance with this Convention. In areas which are not covered by Seveso II, e.g. pipelines, it is assumed that Member States are extending the scope of Seveso II in their national laws or taking appropriate separate initiatives.</p>
B-8	<p><u>“Significant increase”</u></p> <p>What is a “significant increase” in the quantity of dangerous substance, requiring notification (Art. 6)? 10%?</p>	<p>This is likely to be dependent on the particular circumstances. The 10% suggested may well be a reasonable figure for many cases. However, where there is already a very large quantity of dangerous substance present, 10% could perhaps significantly exceed ‘5% of the qualifying quantity laid down in column 3 of Annex I’ which is one of the criteria for notification of a major accident. In at least these cases, less than 10% may be considered ‘significant’.</p>

B-9	<p><u>“Change in the nature” of a substance</u></p> <p>What is a “change in the nature” of a substance, requiring notification (Art. 6)? Another substance or a substance having another classification?</p>	<p>Clearly a substance with another classification is a change. However, a change from one substance to another which is similar physically and chemically, and has the same classification, might in some circumstances not require a new notification – provided the information provided under Art. 6(2) <i>sufficient to identify the ... category of substances involved</i> remains valid.</p>
B-10	<p><u>“Industrial chemical process”</u></p> <p>Article 2 refers to dangerous substances “which it is believed may be generated during <i>loss of control of an industrial chemical process</i>”. What is meant by <i>industrial chemical process</i>? Can this also be expected to cover activities related to storage?</p>	<p>The term “industrial chemical process” was deliberately chosen to make determination of the scope of the Directive feasible. Such substances which might be generated through forms of loss of control other than loss of control of an <i>industrial chemical process</i>, such as for example warehouse fires, are not covered. Storage of non-dangerous substances, which can create dangerous substances in the event of an accident, are not covered by the term “<i>loss of control of an industrial chemical process</i>”.</p>
B-11	<p><u>Extractive Industries</u></p> <p>Article 4e excludes certain activities of the extractive industries. However, is underground gas storage, e.g. in caverns or redundant oil fields, excluded or not?</p>	<p>Underground gas storages are only excluded from the scope of the Directive if they fall under “<i>activities concerned with exploration for, and the exploitation of, minerals in mines and quarries or by means of boreholes.</i>”</p>
B-13	<p><u>Time limits to submit the MAPP</u></p> <p>Within what time limits do operators of lower-tier establishments (new or existing) have to submit their MAPP?</p>	<p>The requirement is that the operator draw up a MAPP and that it be ‘made available’ to the competent authorities. This means that operators have no obligation to actually send the written document setting out their MAPP to the competent authority. The competent authority will have to request the document setting out the MAPP from the operator. It is required that such a document ‘be available’ immediately upon implementation of the Directive into national laws as no time delay has been provided.</p>
B-14	<p><u>Change of name of the operator</u></p> <p>The name of the operator of an establishment must be notified, but is there no requirement to notify a change of operator of an establishment?</p>	<p>The actions to be taken in the case of a change of operator depend on the particular Member State’s legal and administrative procedures.</p>

B-15	<p><u>External emergency measures</u></p> <p>What is the deadline for the drawing up of external emergency plans according to the consolidated status of the Directive ?</p>	<p>According to Article 11 (c), the competent authorities are obliged to draw up <i>External Emergency Plans</i>. No specific deadline for this is set down in the Directive, but it can be inferred that it must be done within a reasonable period of time after receipt of the necessary information.</p> <p>The deadlines for the submission of the necessary information by the operator are defined in Article 11 (b); the first three intents of this paragraph have expired, so only the forth intent is relevant. This means the operator has to provide the necessary information for external emergency plans without delay, but not later than one year after the Directive applies (either one year after the deadline for the Amendment Directive to come into force or one year after any other date the Directive applies later, e.g. by a change of substance classification)</p>
B-16	<p><u>Probabilities of scenarios</u></p> <p>Annex 2 par. IV (A) states that a safety report should include a "...description of the major-accident scenarios and their probability or the conditions under which they occur...". Does this mean that a company can choose whether or not to indicate the probabilities of the scenarios?</p>	<p>This provision was intended to cover in a flexible way the varying national approaches to the presentation of major-accident scenarios. In the absence of more specific national legislation, the Directive itself does not mandate one approach in preference to the other.</p>
B-17	<p><u>2% rule</u></p> <p>Does the "2% rule" (Point 4 in the Introduction to Annex I) mean that a Safety Report does not have to deal with such small isolated quantities of hazardous substances?</p>	<p>No, the "2% rule" only applies to establishing the scope of the Directive. Once an establishment comes within the scope, the Safety Report should cover all hazardous substances involved in the process or stored as such on site. However, it may be that for small isolated quantities which can neither cause a major accident themselves nor act as an initiator in a major-accident scenario elsewhere on site, a detailed risk analysis with major-accident scenarios is not required; still the safety report should mention the substances and explain why they do not present a major-accident hazard.</p>

B-18	<p><u>Major Transport Routes</u></p> <p>Article 12 of the Seveso II Directive refers to “major transport routes” as one target to maintain appropriate distances from a site covered by the Directive. What shall be regarded as “major transport routes”?</p>	<p>The practical evaluation of a transport route as a “major route” depends always on the individual situation because the distribution of traffic density may vary widely. Transport routes with traffic frequencies <u>below</u> the following values may not be considered as major ones:</p> <ul style="list-style-type: none"> <li>- roads with less than 10.000 passenger vehicles per 24 hours</li> <li>- railroads with less than 50 passenger trains per 24 hour.</li> </ul> <p>Transport routes with traffic frequencies <u>above</u> the following values shall be considered in any case to represent major transport routes</p> <ul style="list-style-type: none"> <li>- motorways (speed limit &gt; 100 km/h) with more than 200.000 vehicles per 24 hours or 7000 vehicles per peak hour</li> <li>- other roads (speed limit ≤ 100 km/h) with more than 100.000 vehicles per hour or more than 4000 vehicles per peak hour</li> <li>- railroad lines with more than 250 trains per 24 hours or more than 60 trains per peak hour (both directions together)</li> </ul> <p>Airports shall be assessed individually.</p>
B-19	<p><u>Article 4c – Intermediate temporary storage:</u></p> <p>Article 4c of the Directive excludes from its scope:</p> <p>“the transport of dangerous substances and intermediate temporary storage by road, rail, internal waterways, sea or air, <b>outside the establishments covered by this Directive</b>, including loading and unloading and transport to and from another means of transport at docks, wharves or marshalling yards;”</p> <p>How to interpret “outside the establishments covered by this Directive”?</p> <p>Existing case: Can the operator of an establishment, consisting of a warehouse that stores 20 tonnes of very toxic substances, claim that 15 tonnes are storage in the transport chain (often called “transit storage”)? If yes, then the transit storage is to be excluded and the establishment is to be considered as a lower tier establishment. If not, then the establishment is to be considered as an upper tier establishment.</p>	<p>The warehouse is to be considered as an establishment as meant in article 3.1. Its purpose is to store dangerous substances. 20 tonnes of very toxic substances are present on a continuous basis. Exclusion 4c refers to the necessary intermediate storage in the transport chain outside establishments, not to the storage in warehouses specifically designed and used for the storage of dangerous substances on a regular basis.</p> <p>The correct application of article 4c is to consider the whole warehouse as a unique establishment and, in particular, as an upper-tier establishment.</p>
B-20	<p><u>Use of bio-fuels</u></p> <p>Ethanol/petrol fuel blends with a content of up to 5 % of ethanol, intended to be used for automotive purposes fall already under the general exemption for petroleum products.</p> <p>How shall blends with more than 5 % ethanol be treated?</p>	<p>The question refers to two different groups of substances:</p> <p>a) <u>Mixtures/blends of petrol (or diesel or other “petroleum products”, where “petroleum” refers to a certain originating substance produced from crude oil) with a content of up to 5% of ethanol</u></p>

The Amendment of the Seveso Directive, by setting high threshold levels for the named substance “petroleum products”, grants a general exemption as the technology and safety systems for petrol and petroleum products are very much standardised and the legislator intended to avoid that small scale filling stations are covered by the Directive. In line with Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport and Directive 98/70/EC relating to the quality of petrol and diesel fuels, a mixture or blend of petrol with a content of up to 5 % of ethanol intended to be used for automotive purposes falls under this exemption.

b) Mixtures/blends with more than 5% of ethanol, and especially those where the component in majority is ethanol (bio-fuels)

In general, blends and other preparations have to be treated equally according to their properties. The Seveso Directive, referring to the Preparations Directive 1999/45/EC, provides for appropriate procedures on how to determine flammability hazards and how to classify mixtures.

Clearly, blends/mixture with high content of ethanol (as, for example the bio-fuel commonly known as **E85** with a content of 76-86 % ethanol and 14-24 % petrol) cannot be regarded as a petroleum product, because of their composition. Under the current framework of Annex I, blends with a majority of ethanol may be regarded as a mixture of “normal” flammable liquids and should be classified according to the classification/testing methods and criteria described in Directive 67/548/EC. Since no classification of these mixtures according to Dir.67/548/EC and no concentration limits are currently available, self-classification by the producers is necessary and depending on the flammability hazards of the mixture the thresholds of the relevant Seveso category of Annex I Part 2 category should apply (**category 7b if the mixture is classified as R11, or category 8 if the mixture is classified as R12**).

Note: Currently, there is no consolidated classification of these mixtures across the industry. Tests performed by the Swedish Petroleum Institute, covering a variety of products and including both summer (85% ethanol) and winter (70% ethanol) quality resulted in classifying the mixtures as R11. Furthermore, the Material Safety Data Sheet of E85 provided by the US Dept.of Energy estimate the initial boiling point at 35.6 C, which justifies its classification as R11 and application of category 7b of Annex I Part 2 of the Seveso Directive with thresholds of 5000/50000 t.

B-21	<p><u>Classification of substances and preparations as Explosives:</u></p> <p>Directive 105/2003/EC defines an explosive as:</p> <ul style="list-style-type: none"> <li>- a substance, preparation or article which creates the risk of an explosion by shock, friction, fire or other sources of ignition (risk phrase R2),</li> <li>- a substance, preparation or article which creates extreme risks of explosion by shock, friction, fire or other sources of ignition (risk phrase R3)</li> <li>- a substance, preparation or article which falls under UN/ADR Class 1 (Divisions 1.1, 1.2, 1.3, 1.5, and 1.6 with thresholds 10/50 t, while UN/ADR Division 1.4 with thresholds 50/200 t).</li> </ul> <p>Moreover, Note 2 states that “Where a substance or preparation is classified by both UN/ADR and risk phrases R2 or R3, <b>the UN/ADR classification shall take precedence over assignment of risk phrases</b>”.</p> <p><u>Question:</u> Is the rule of predominance of the UN/ADR classification over the risk phrases <u>always valid</u> or it should be applied <u>only</u> when the substance or preparation is covered by Class 1 of the UN/ADR (1.1, 1.2, 1.3, 1.4, 1.5 &amp; 1.6)?</p>	<p>The predominance of UN/ADR classification over the risk phrases is valid <u>only</u> when the substance or preparation is covered by Class 1 of UN/ADR (Divisions 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6). UN/ADR classification has no effect in the other categories of Annex I Part 2. Furthermore, a different interpretation would result in underestimation of the potential hazards.</p> <p>Example: Benzoyl peroxide is classified by risk phrases R2, R7, R36 and R43 and UN/ADR class 5.2. If UN/ADR classification had predominance over the risk phrases the substance would have been covered by Seveso Directive under generic category “3. Oxidizing” with thresholds 50/200 t. The correct classification, taking proper account of the hazard potential, is “5. Explosive” with thresholds 10/50 t.</p>
B-22	<p><u>Coverage of airports in the Seveso II Directive:</u></p> <p>When applying article 2.1 (scope of the Seveso II Directive) to airports, should the content (normally kerosene) of the fuel tanks of on-ground aircrafts be taken into account?</p>	<p>No.</p> <p>The scope of the Seveso II directive was not intended to include aviation safety. As the aircrafts are on-ground only for a limited time, the content of their fuel tanks of aircrafts should not be taken into account when applying article 2.1.</p> <p>This does not mean that airport establishments are excluded from the scope of the Directive. Quantities of dangerous substances (including kerosene) in storage facilities or in the distribution network at airports should still be taken into account when applying article 2.1 and Art.6/7 or Art.9 of the Seveso II Directive.</p>
B-23	<p><u>Evaporation of aqueous solutions:</u></p> <p>Some aqueous solutions of human toxic by inhalation substances (risk phrase: R23) are not classified as human toxic under the Seveso II Directive. This is the case of hydrochloric acid (not included in Seveso) or ammonia solution (with an R50 risk phrase for &gt; 30% ammonia solution). In case of leakage of these solutions, as they contain a gas which is classified under Seveso as human toxic by inhalation, this gas will evaporate and will be emitted to the atmosphere. Art. 2 of the Directive indicates that “the presence of dangerous substances” means the actual or anticipated presence ... or the presence of those which it is believed may be generated during loss of control of an industrial chemical process. Is the evaporation of the mentioned aqueous solutions considered as “industrial chemical process” and the relevant solutions covered by the Directive?</p>	<p>No.</p> <p>The evaporation of aqueous solutions following a leakage cannot be considered as an “industrial chemical process” and the relevant solutions, if initially not covered by the Directive because of low concentration will not change status (i.e. will continue to be excluded).</p>