

**European Commission
Questionnaire on
Directive 96/82/EC on
the Control of Major
Accident Hazards
involving dangerous
substances (SEVESO II)
2003 – 2005:
United Kingdom
Response**

1. General Information

a. Main enforcement authorities and their main tasks

The majority of the provisions of the Seveso II Directive are implemented in Great Britain through the Control of Major Accident Hazards Regulations 1999 (COMAH), as amended. A Competent Authority (CA) comprising the Health & Safety Executive (HSE) and the Environment Agency (EA) in England and Wales, and HSE and the Scottish Environment Protection Agency (SEPA) in Scotland enforces COMAH. There is corresponding legislation in Northern Ireland and Gibraltar enforced by the Health and Safety Executive for Northern Ireland and the Gibraltar Environmental Agency respectively. The CA is responsible for assessment of safety reports and inspection, investigation and enforcement activities at major hazard sites. The land use planning requirements contained in Article 12 of the Seveso II Directive are implemented in the UK by separate legislation. Local planning authorities, based on advice mainly provided by HSE, make decisions about land use planning.

	2003	2004	2005
<i>(bi) Number of lower tier establishments</i>	828	806	776
<i>(bii) Number of upper tier establishments</i>	390	379	385
<i>(biii) "Non Seveso" establishments that joined the "lower tier category"</i>	31	50	65
<i>(biv) "Non Seveso" establishments that joined the "upper tier category"</i>	4	21	42
<i>(bv) Lower tier establishments that joined the "upper tier category"</i>	10	1	11
<i>(bvi) Lower tier establishments that are no longer "Seveso establishments"</i>	22 ¹	73	87
<i>(bvii) "Upper tier" establishments that have become "lower tier"</i>	1	2	3
<i>(bviii) "Upper tier" establishments that are no longer "Seveso establishments"</i>	8 ¹	28	44

Note 1: The 2003 figures for establishments that ceased to be subject to Seveso (questions (bvi) and (bviii)) relate only to those that closed completely during that year. It is not possible to identify from our recording systems those establishments that continued to operate although no longer subject to Seveso.

Note 2: At the end of 2005 the amendment to Seveso and the ATPs had resulted in the notification of 37 new establishments, 31 of which fell into the lower tier category and 6 into the upper. The new establishments related mainly to those holding carcinogens, explosives, substances dangerous to the environment and ammonium nitrate. In addition to the 37 new establishments notified nine others changed in status from lower to upper tier. These figures were much lower than those that had been predicted in the Regulatory Impact Assessment for the COMAH Amendment Regulation

2. Safety Reports

	2003	2004	2005
<i>(a) Establishments who have not yet submitted any safety report¹</i>	0	12	28
<i>(b) Establishments whose safety report has been updated for the last time:</i>			
<i>i) before 1/1/2003</i>		2	
<i>ii) during 2003</i>		0	
<i>iii) during 2004</i>		0	
<i>iv) during 2005</i>		26	
<i>v) unknown</i>		See Note 2	

Note 1: The figures for 2004 and 2005 relate to establishments newly subject to upper tier status where the safety report, as permitted under the timescales set out in the Control of Major Accident Hazards Regulations 1999 (COMAH), the legislation implementing Seveso in the UK, had not yet been submitted.

Note 2: Because of the transitional arrangements in Article 9.3 of the Directive many operators were not due to carry out a five-year review until after the period covered by this report. Thus, although no updates had been received from those operators the position regarding when they were due was not unknown.

(c) Mean period of time between the reception of a safety report and the communication of conclusions to the operator.

The mean period of time between the receipt of a safety report and the communication of conclusions to the operator between the introduction of COMAH and the end of 2005 is 552 days

The mean period of time between the receipt of a safety report and the communication of conclusions to the operator for reports received and cleared

between 2003 and 2005 is 346 days. The figures indicate that the mean period of time between the receipt of a safety report and the communication of conclusions to the operator reduced during the period of time covered by this report.

3. Emergency Plans

	2003	2004	2005
(1) Establishments with no internal emergency plan	0	12	28
(2) Establishments with an internal emergency plan	390	370	332
(3) Situation under assessment with regard to internal emergency plans	0	0	30
<p>Note 1: The safety report must demonstrate that an internal emergency plan has been drawn up. In assessing safety reports the Competent Authority (CA) undertakes a first reading of the safety report. At this stage a check is made to ensure that the safety report contains evidence that an internal emergency plan exists. The figures in answer to (1), above, reflect those establishments that had not yet submitted a safety report at the time. The figure in answer to (3) reflects the position regarding those safety reports that were at an early stage of assessment.</p>			
(4) Establishments with no external emergency plan	Not Available	177 ¹	15 ²
<p>Note 1: The figure of 177 reflects the position early in 2004. The exact figure for the end of 2004 is not available, but would have been somewhat lower. Note 2: The actual total number of establishments without external emergency plans in 2005 was 55, but this included 32 establishments where a plan was not yet required, five with no-off site consequences and three where the establishment was still under construction, leaving 15 without external plans where one should have been in place.</p>			

(5) Testing of External Emergency Plans

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, and will usually examine the response during the first few hours.

Testing the principle components of the plan can therefore take a number of forms and might include:

- a) Seminar exercises, facilitating discussion about the different organisation's responses in particular circumstances during an emergency;
- b) Walk-through exercises where the emergency response is 'walked through', including visiting appropriate facilities such as emergency control centres (ECCs);
- c) Table-top exercises based on a suitable scenario or scenarios identified in the safety report, to examine the command and control arrangements and inter-agency liaison during an emergency;

- d) Control post exercises testing the communication arrangements during an emergency, with participating organisations located where they would be during an emergency; and,
- e) Live exercises fully testing some or all aspects of the emergency plan.

Testing should be co-ordinated and agreed locally to give the maximum benefit to local authorities, operators and emergency services. The CA expects the components listed above to be examined at least once in each three-year period and recognises that there will be considerable benefits from carrying out some of the exercises, for example the ‘control post’ communications exercise, every year.

Testing should enable appropriate personnel and resources to be brought together in one place to work through their roles in the event of an emergency in a realistic way and should normally be centred around a simulated event selected from the hazards identified in the safety report. The testing of some of the components should take the form of a live exercise, involving the deployment on the ground of the appropriate resources in a simulation of their actual response to an incident.

The main objectives of testing emergency plans are to give confidence in the following constituents of the plan:

- a) The completeness, consistency and accuracy of the emergency plan and other documentation used by organisations responding to an emergency;
- b) The adequacy of the equipment and facilities, and their operability, especially under emergency conditions; and,
- c) The competence of staff to carry out the duties identified for them in the plan, and their use of the equipment and facilities.

The plan will be considered to have been fully tested when all the component parts have been individually or collectively tested sufficiently to provide evidence that the main aims and objectives of the plan have, or have not, been met.

	2003	2004	2005
<i>(6,7,8) External emergency plans tested for the last time in the current year^{1,2}</i>	43	88	84
<p>Note 1: This information is not recorded centrally and has been obtained through a survey of our field inspection teams and may be subject to update. Note 2: In 2004 177 establishments were without external emergency plans. The vast majority of the outstanding plans have since been provided but will not have been due for review and/or testing as required by Article 11.4 of Seveso within the timescale covered by this report.</p>			
(9) Cases where the Competent Authorities has decided that the external emergency plan has not to be produced	5 ¹		

Note 1: The CA has decided that, based on the information contained in the safety report for each of the 5 establishments in question, the consequences of a major accident will not extend beyond the site boundary. There is therefore no requirement for an external emergency plan.

4. Domino Effects

(a) General background information

Domino sites are designated by HSE on behalf of the CA. A contour is set around each site, known as the Consultation Distance (CD), that is given to each establishment for land use planning purposes. The CD is a risk contour for toxic substances (risk of death or serious injury to people), or a hazard contour for flammables and explosives, or a combination of both (where both flammables/explosives and toxics are present). This contour, where it overlaps with the physical boundaries of other sites, is used as the basis to designate domino groups.

	2003	2004	2005
<i>(b) How many groups of establishments have been identified where the domino effect is relevant?</i>	63	64	62
<i>(c) Average number of establishments per group</i>	3	3	3
<i>(d) Number of establishments in the smallest group</i>	2	2	2
<i>(e) Number of establishments in the biggest group</i>	13	13	13

(f) Strategy for ensuring that suitable information is exchanged

All operators whose sites are designated as domino sites are advised of the fact in writing by the CA. The letter provides them with the names and addresses of other establishments in the domino group with which they should exchange information. An example of the type of letter sent to establishments within a domino group is given at Appendix 1. The letter may also give advice on the nature of the information that should be exchanged. Members should exchange necessary information in writing, which the CA may check. In some cases the information is exchanged at a meeting of the members of the designated domino group. Such information may be incorporated in an establishment's safety report, in which case compliance can be checked during the safety report assessment process.

The CA's letter may also request operators to provide confirmation to the CA that they have passed appropriate information to other members of the group. Operators receiving such information should review whether they have taken

all measures necessary to limit consequences for their site. This can be checked for upper tier sites when operators send in revisions to safety reports (which they are required to do should their site be affected) or by raising the issue with operators where no revision has been submitted. For lower tier sites, such information should be presented in the Major Accident Prevention Policy (MAPP), which each operator must prepare and maintain and which must be available for inspection by the CA

5. Land-use Planning

General background information on the adopted measures

Article 12 has been implemented by introducing separate regulations. In England and Wales these are the Planning (Hazardous Substances) Regulations 1992 as amended and, in Scotland, The Town and Country Planning (Hazardous Substances) (Scotland) Regulations 1993 as amended.

Administration and enforcement of the above regulations lies with Hazardous Substances Authorities (HSAs). The HSA is usually, but not always, the Local Planning Authorities (LPAs), and is responsible for granting consent to establishments wishing to keep hazardous substances subject to the terms of the Seveso II Directive. Responsibility also falls to the LPA for granting permission to develop the land in the vicinity of these establishments.

Where new planning consents are concerned, LPAs are required to consult either singly with the Health and Safety Executive (HSE) where only health and safety considerations are at issue or jointly with HSE and their respective English/Welsh or Scottish environment counterparts (the Environment Agency (EA) or Scottish Environment Protection Agency (SEPA)) respectively where environmental matters also need to be addressed. The Competent Authority (CA) partners can respond individually or jointly depending on the issues being considered. This ensures all hazardous aspects of new consent applications are properly considered in terms of the possible human and environmental impact arising from a major accident. On behalf of the CA, HSE defines zones around each establishment based on:

- Risk to humans of toxic releases and/or
- Hazard for flammable or explosive effects.

The LPA is also required to consult on most proposed developments within the zoned area. Again, HSE and EA/SEPA will advise on the compatibility of the development with its proposed location.

Appeals Procedures are in place that allow for cases where the developer or any CA partner is dissatisfied with the conclusion reached by the LA.

Most establishments have a defined inner, middle and outer zone - in order of decreasing risk of harm from identified major accident scenarios. In some cases, the inner zone is within the boundary of the establishment itself. HSE

has codified developments that are compatible with each zone by considering the:

- Number of people present;
- Duration for which they will be present;
- Ease with which they can be evacuated

The following examples illustrate the application of this policy:

1) Inner zone - HSE would not advise against:

- Workplaces for up to 100 people;
- Public car parks

but would advise against.....

- Larger workplaces;
- Car parks with leisure amenities;
- Housing

Middle zone - HSE would not advise against:

- Larger workplaces, retail or leisure developments less than 5000 m²;
- Small housing developments

but would advise against.....

- Larger retail developments;
- Larger or high-density housing developments

Outer zone - HSE would not advise against:

- Schools;
- Some hospitals

but would still advise against.....

- Larger hospitals;
- Accommodation for elderly people;
- Funfairs;
- Sports stadia

6. Information on Safety Measures

	2003 - 2005 inclusive
(1) Establishments that have informed the public at least once	237 ¹

Note 1: Of the 148 establishments that have not been identified, at the end of 2005, as having informed the public at least once:
 28 are new upper tier establishments and have not yet informed the public;
 15 establishments do not have to inform the public as there is no off-site risk, or there is no population within the PIZ;
 12 are no longer upper tier establishments, or a establishments under construction with no hazardous substances yet present;
 42 have not informed the public; and,
 for 51 establishments the data is incomplete.
 Data is being sought for the 51 establishments for which it is incomplete. The provision of information by the operators of those establishments for which it has not yet been provided, as required by Article 13.1, will be pursued during the course of inspection of those establishments.

	2003	2004	2005
(2) Information made available to other member states	Nil	Nil	Nil
(3) Information received from other member states	Nil	Nil	Nil
(4) Establishments incapable of creating a major accident in another MS	Nil	Nil	Nil

(5) Strategy for informing the public

The CA determines the public information zone (PIZ) for each establishment 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. The extent of the PIZ is notified to the operator by the CA. The operator is then responsible for supplying information to the public.

The way in which the information should be provided is not specified but it could include a durable card giving an illustrated summary of safety instructions. Information provided in writing is expected to be written in straightforward and simple terms, avoiding the use of complicated technical expressions, so as to be readily understood by lay readers. Key messages need to be highlighted, possibly by the use of illustrations, in such a way as to get the message across to children as well as adults. Where necessary, information will be translated into other languages and local authorities (LAs) are normally able to advise operators about the need for this.

When distributing the information, operators are expected to consider everyone who could be in the PIZ when a major accident occurs, including people passing through the area in vehicles and people visiting other premises within the PIZ, such as shops and leisure centres.

Where possible, operators enter into agreements with their LAs to distribute the information within the PIZ on their behalf. Such agreements normally

cover everything relevant to the distribution of the information, including the area and method of distribution, and any special arrangements for premises such as workplaces, shops, hotels and leisure centres. The question of the costs that will be incurred by LAs in disseminating the information will also normally be included in agreements, particularly where LAs wish to recover costs from operators. In cases where agreement cannot be reached, operators will disseminate the information themselves.

The information is distributed to everyone outside the establishment and within the PIZ. Anyone whose presence in the PIZ can be predicted, such as residents and workers at other premises, is sent the information by post or by other means. Where it is more effective, multiple sets of information are sent to some locations, such as workplaces and multi-occupied dwellings, for those in control to pass on. The information may also be displayed alongside other emergency instructions at workplaces or other places to which the public have access. In order to make the information available to the wider public, operators have the option of displaying it at the major hazard establishment (perhaps on external notice boards) or, subject to agreement, in public libraries or town halls. Operators and LAs are encouraged to publicise its availability.

There has been no evaluation of the costs involved in informing the public.

In the 2005/2006 work year, HSE undertook a project to confirm that suitable information has been made available to the public by all operators of upper tier sites, and to check the adequacy of the information. Some of the data from this project remains incomplete as indicated in the figure given in answer to question 6(1).

7. Prohibition of Use

(1) What are the different existing coercive instruments that can be used?

The main formal enforcement measures used are:

Prohibition Notices PNs issued under regulation 18 of COMAH (COMAH PNs), which prohibit the operation or bringing into operation of an establishment or installation or any part thereof in accordance with Article 17 of the Seveso II Directive.

Prohibition Notices (PNs) that inspectors have powers to issue under the Health & Safety at Work etc. Act 1974 where they identify an immediate risk of serious personal injury involving a breach of COMAH. These may be 'immediate' (PN-I) or 'deferred' (PN-D). A PN-D may be used in cases where greater potential risk may be caused by shutting a process down immediately, to allow the operator to let it run its normal cycle and then call a halt to the activity.

1. Improvement Notices (INs) that inspectors have powers to issue under the Health & Safety at Work etc. Act 1974 where, in their opinion, there is a breach of COMAH involving a less serious risk.

2. In the most serious cases an operator may be prosecuted for breaching his duties under COMAH. Prosecutions are normally preceded by the issue of one or more notices as described in (i) to (iii) above.
3. For more minor breaches of compliance with COMAH a verbal warning, followed by a letter, may be used without recourse to notices.

(2) In how many cases have each of these instruments been used

		2003	2004	2005
Improvement Notices (INs) referencing breach of COMAH	Lower Tier (LT)	13	11	16
	Upper Tier (TT)	31	19	23
	Total	44	30	39
Prohibition Notices (Immediate) (PNs-I) referencing breach of COMAH	LT	1	2	2
	TT	2	1	0
	Total	3	3	2
Prohibition Notices (Deferred) (PNs-D) referencing breach of COMAH	LT	1	0	4
	TT	0	1	0
	Total	1	1	4
Prosecutions associated with COMAH activity	LT	0	0	2
	TT	0	0	1
	Total	0	0	3

8. Inspection

(a) Overview of the strategy and means for inspection

COMAH is regulated in England and Wales by a Competent Authority (CA) comprising the Health and Safety Executive (HSE) and the Environment Agency (EA). In Scotland the CA comprises HSE and the Scottish Environment Protection Agency (SEPA). Inspection plans are developed and agreed within the CA at local level and implemented either by joint visiting or with one part of the CA taking the lead, depending on whether the inspection issues relate to people's health and safety or the environment.

Inspection plans based on a systematic appraisal of the major hazards present are required for all COMAH establishments. The plans identify all significant inspections required at establishments, embracing issues concerning conventional health and safety, major accidents and national

initiatives e.g.: location of occupied buildings, exothermic reactions, tanker offloading etc.

One or more inspectors may carry out inspections. We ensure that the required technical skills are provided to deal with the topics identified in the plan. When on site - and depending on the reason(s) for the visit - inspectors will verify that conditions reflect the safety report descriptions, read additional documentation (not provided in safety reports), interview management and employees, observe physical standards and assess operators' safety management systems. General guidance on enforcement action has been published by HSE and shared across the CA to enable a consistent approach. Advice will be given by inspectors, or enforcement action taken, proportionate to the shortfalls identified.

For upper tier establishments, inspection priorities have been set based on safety reports and past contacts. Inspection plans for each establishment are prepared by the assessment team following assessment of the safety report and are reviewed annually. The assessment team comprises inspectors with regulatory, safety management, technical, predictive and environmental specialist skills. The same people are also responsible for conducting the inspections and know the conditions at the establishment. Central direction on overall inspection policy and programming is issued from the headquarters of the respective CA partners. However, decisions on implementation with respect to individual sites are a matter for local decision making at CA divisional/ regional office level.

Inspection plans for upper tier establishments cover the period up to the next review/revision of the safety report - usually 4 to 5 years. The plans are based on the outcome of the assessment, knowledge of the establishment from previous inspections, investigations of complaints, accidents and incidents and industry sector intelligence. The plans are reviewed annually at local level.

Minimum qualifications of inspectors will vary according to their discipline. The site inspector from HSE will normally hold a Postgraduate Diploma in Health and Safety and specialist inspectors will hold a range of specialist/technical qualifications relevant to their particular disciplines. All inspectors will have attended a range of technical training courses run by HSE and will have undertaken a series of joint visits to COMAH establishments with more experienced colleagues, in order to develop the specific skills and competences required.

The site inspector from the Environment Agency will normally hold a degree in engineering or the physical sciences and have several years experience working in the process industries. He would normally work as an inspector on PPC installations for several years before being selected to carry out COMAH inspections. All COMAH inspectors will have attended a one day COMAH training course run by the Environment Agency and will have undertaken a series of joint visits to COMAH establishments with more experienced colleagues, in order to develop the specific skills and competencies required.

The table below gives an indication of the number of man-hours spent on Seveso activities during each of the three years, together with the number of man-hours spent on inspection.

Man-hours spent on inspection

	2003	2004	2005
<i>Total man-hours spent on Seveso activities</i>	36000	33300	38600
<i>Time man-hours spent on inspection at Seveso establishments</i>	15200	20400	20000

Establishments inspected

	2003	2004	2005
<i>(b) Upper tier establishments inspected¹</i>	330	356	357
<i>(c) Lower tier establishments inspected¹</i>	386	391	384
<i>(d) Upper tier establishments not inspected during the last three years²</i>	15		
<p>Note 1: The figures for the number of establishments inspected reflect the minimum number of different establishments that will have been inspected by the CA in each calendar year. Some of the inspections will have been carried out by HSE inspectors alone, some by Agency partner inspectors alone and some jointly. The total number of CA inspections of establishments will be greater than the figures quoted above, as many establishments will have received more than one inspection visit during the course of the calendar year.</p> <p>Note 2: Nine of the sites are new TT sites. As indicated previously, intervention plans are based on a number of factors and are risk based and in compliance with Article 18.2(a). Annual visits may not therefore be paid to a limited number of upper tier establishments.</p>			
<i>(e) Lower tier establishments not inspected during the three years</i>	271 ^{1,2}		
<p>Note 1: As with upper tier establishments, inspection plans for lower tier establishments are based on a systematic appraisal of major-accident hazards of the particular establishment concerned in compliance with Article 18.2(a).</p> <p>Note 2: The CA's overall aim is to ensure that as well as basing inspection plans for lower tier establishments on a systematic appraisal of major-accident hazards each establishment receives an inspection visit at least once in every five years.</p>			

Appendix 1 – Example of Letter to Member of Domino Group

Head of Unit –

Dear Sir

CONTROL OF MAJOR ACCIDENT HAZARDS REGULATIONS 1999

Regulation 16(1) of the above Regulations requires the Competent Authority to designate groups of COMAH establishments where the likelihood or consequences of a major accident may be increased because of the location and proximity of establishments in the group and the dangerous substances present there.

Your establishment has been identified as part of one such group. Regulation 16(3) requires you to pass appropriate information about your establishment to the other establishments in the group to enable them to take account of the nature and extent of the overall hazard of a major accident in their major accident prevention policy documents, safety reports and on-site emergency plans; and to co-operate with those establishments to enable them to carry out any obligations they have under the Regulations including the preparation of emergency plans and providing information to the public.

In Cleveland there are existing arrangements for such sharing of information and co-operation. I suggest these are used where appropriate.

You should review your MAPP document or safety report and your on-site emergency plan in the light of any new information received and amend them if necessary.

The Competent Authority has decided to use the Consultation Distances set for COMAH sites for the purpose of designating the “domino” groups.

I attach a table identifying the sites in the group within your Consultation Distance. The Public Information Zone will be the same as the Consultation Distance unless you are advised differently.

Further guidance on this can be found at paragraphs 279-286 of the Guide to the Regulations, L111.

If you need further information or explanation of this letter, please contact me or your site inspector.

Yours faithfully

HM Principal Inspector of Health and Safety