

Revised guidance for operators of top tier COMAH establishments

Review and revision of COMAH safety reports

(As required by the Control of Major Accident Hazard Regulations 1999)

COMAH R01

the Competent Authority



1. Introduction

1.1 This guidance gives advice on the requirements for review and revision of safety reports under Regulation 8 of the Control of Major Accident Hazards Regulations 1999 (COMAH)¹. It supplements advice contained in guidance document L111.² The guidance has been revised to reflect the changes in arrangements for the submission and assessment of the five-year safety report review.

1.2 Regulation 8 specifies that you must review and where necessary revise your safety report in a number of circumstances, discussed in more detail below. In broad terms, this means that you should:

- review your safety report where changes **could have** significant repercussions with respect to the prevention of major accidents or the limitation of consequences of major accidents to persons and the environment;
- where changes **do have** significant repercussions, revise your safety report to reflect the changes; and
- in any event, undertake a review of your full safety report every five years.

1.3 The purpose of review and revision is to ensure that your safety report remains up to date and continues to provide an accurate representation of the major accident hazards on your site and the measures in place to control them.

1.4 The two significant changes to the assessment of five-year safety reports revisions are:

- a six month pre-meeting will be held between the Operator and the COMAH Competent Authority (COMAH CA) to discuss content of the five-year revision; and
- five-year revisions will receive less desk-top assessment by COMAH CA technical specialists. Instead there will be a move towards on-site verification of demonstrations made in the safety report.

1.5 The operator should also now clearly signpost any changes in the safety report since the last assessment and produce a report (detailed in appendix 2) to support this. This will speed up the assessment process and make it more efficient.

2. When should I review my safety report?

2.1 Regulation 8 of COMAH requires you to review your safety report under the following circumstances (see Table 1, appendix 1 for specific examples).

- **(Safety Management System (SMS) changes)** Whenever you make a change to your SMS that could have significant repercussions with respect to the prevention of major accidents or the limitation of consequences of major accidents to persons and the environment.
- **(Modifications)** Where you propose to modify your establishment or installation in it, the process carried on there, or the nature or quantity of dangerous substances present there, and that modification could have significant repercussions with respect to the prevention of major accidents or the limitation of consequences of major accidents to persons and the environment.
- **(New facts or knowledge)** Whenever such a review is necessary because of new facts or to take account of new technical knowledge about safety matters.
- **(Five-year review)** Fully at least every five years.

2.2 You should review your safety report, as soon as possible, following SMS changes or in response to new facts or knowledge. Where modifications are proposed the review must be carried out in advance of the modifications being put into place. The five-year review should be completed no later than five years after the original submission or last five-year review. If you were asked to re-submit your safety report during the assessment process, the five-year period starts from the date that the most recent version was submitted.

2.3 If you submitted your safety report in parts, you must review each part no later than five years after it was submitted. Review of the final part needs to consider whether all the parts together fulfil the purposes set out in Schedule 4, Part 1 of COMAH and contain all the information detailed in Schedule 4, Part 2.

2.4 You may conduct a full review of your safety report at any time before the five-year time limit expires, for example as part of a programme of SMS audit/review or when carrying out interim 'change' reviews. Provided that the entire report is reviewed and the review is adequately documented the five-year period will start again.

3. What are 'significant repercussions'?²

3.1 A change will have significant repercussions with respect to the prevention or control of major accidents if it:

- introduces a new major accident hazard;
- changes the on or off-site consequences or severity of an existing hazard;
- affects control or mitigation measures (including off-site emergency plans) put in place to ensure that the risks remain as low as reasonably practicable (ALARP)^{3,4} and/or;
- has implications for the initiation and/or escalation of other major accident hazards.

3.2 Changes that have a positive impact on the risk profile are also important.

Note: Table 1 in Appendix 1 provides some examples of changes that could have significant repercussions.

4. How should I review my safety report?

Change review

4.1 An important aspect of the effective review of your safety report is the existence of well-developed change management procedures. If implemented properly and in a timely manner, such procedures will enable you to identify changes that could have significant repercussions with respect to the prevention of major accidents or the limitation of their consequences (see also Table 1). Guidance on management of change is available on the HSE Website.^{5,6}

4.2 Having identified changes that **could have** significant repercussions you should review your risk assessment to determine whether the assessment is still valid and whether risks are still ALARP. If they are, the changes **do not have** significant repercussions and you will not need to revise your safety report. However, you should record details of the changes and the outcome of the review for future reference.

4.3 Where you conclude that your risk assessment is no longer valid and/or risks are no longer ALARP, the changes **do have** significant repercussions and you should take the appropriate corrective action and revise your safety report accordingly. For more complex changes, particularly where a new process or activity is being introduced, you should carry out a new risk assessment. This should be to a depth that is proportionate to the level of risk. For organisational change, the approach outlined in HSE Chemical Information Sheet No CHIS7⁵ may be appropriate.

4.4 You should adopt a similar process of review of your risk assessment when you become aware of new facts or to take account of new technical knowledge about safety issues (see Table 1 for examples).

Five-year review

4.5 At the five-year review you need to determine whether your safety report still:

- meets the purposes set out in COMAH Schedule 4, Part 1; and
- contains the minimum information required by COMAH Schedule 4, Part 2, and that this information is up to date.

In doing so, you should check whether all SMS changes, modifications and new facts or knowledge, since the last full review that **could have** significant repercussions, have been considered. If this is not the case, it will be necessary to take the action described in paragraphs 4.2 and 4.3 above.

4.6 You should also check whether changes made over the same period, which did not individually result in significant repercussions when taken together mean that revision of the report is necessary.

4.7 Even where nothing has changed on site, you should undertake a documented review of your hazard analysis (eg Hazard and Operability Study (HAZOP)) and risk assessment at the five-year stage, to check whether:

- the methods and standards originally used are still fit for purpose;
- the major accident scenarios are still representative of activities on site;
- the risk assessment is still valid; and
- your ALARP demonstration makes clear linkages between the prevention, control and mitigation measures and the identified major accident scenarios.

4.8 Table 2 in Appendix 1 summarises the scope, breadth and depth appropriate when conducting reviews of safety reports.

4.9 The way in which the COMAH CA assesses five-year revisions is outlined in the diagram below.

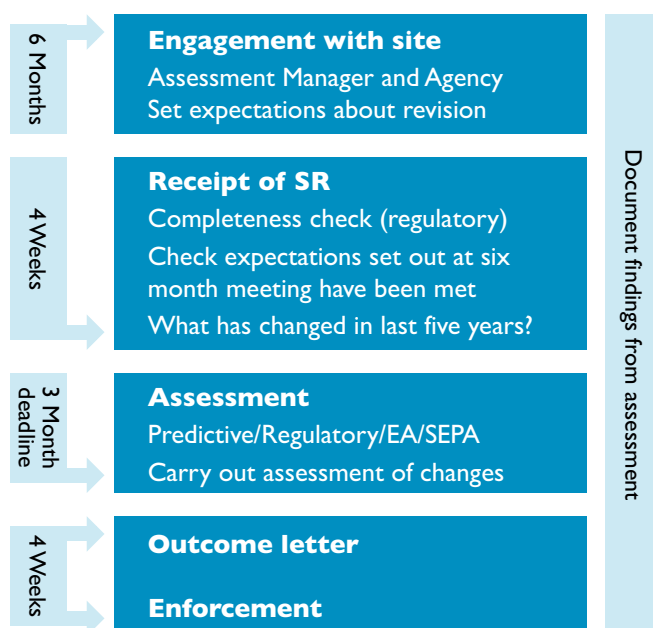


Diagram of the remodelled five-year review process

4.10 The main change to the process is that six months ahead of the safety report due date a meeting is held on-site to discuss the scope, breadth and depth of the revision.

4.11 The movement from desktop assessment by technical specialists towards the onsite verification of demonstrations made in the safety report.

5. Why do I need to revise my safety report?

5.1 The purpose of revision is to ensure that your safety report remains up to date and continues to provide an accurate representation of the major accident hazards on your site and the measures in place to control them. You will therefore need to revise your report whenever the review process described in Part 4 confirms that changes do have significant repercussions with respect to the control of major accidents. It will be necessary to revise your safety report to:

- describe the causal changes (SMS changes, new facts or knowledge, or modification);
- describe the resulting changes in risks and control and mitigation measures in place; and
- demonstrate that the risks are ALARP following the changes.

5.2 Changes in the descriptive information relating to the establishment and the processes carried on there may already have been included in other revisions. However, you may need to revise general information contained within your safety report at the five-year review, such as a broad description of the activities carried out on site, or a description of land use or population densities off site, where you find that it is no-longer accurate.

5.3 Where you conclude that revision of your safety report is necessary, you should carry out that revision as soon as possible after completion of the review (see also Section 7).

6. How should revisions be documented?

6.1 In order to facilitate efficient assessment, which should reduce time required by the CA to complete assessment and inspection preparation, revisions should be consolidated into an updated safety report, supplied as a whole, with the changes clearly marked. If your report was originally submitted in loose-leaf ring binders, submission of only the amended pages is acceptable provided that you include any pages that needed consequential amendments, eg any other pages that contain references to the revised pages where things such as paragraph numbers have changed.

6.2 Where interim revisions to your safety report are necessary between five-year reviews, as a result of changes on site or in response to new facts or new technical knowledge, you may choose to wait until the next five-year review before producing a fully consolidated version of your safety report. In such cases, details of interim revisions should still be supplied to the CA at the time that the changes occur but these could be in the form of supplementary documents or appendices.

6.3 At the 5-year review you should produce a fully updated and consolidated version of your safety report, containing all relevant information from the following list:

- details of interim revisions not previously incorporated into the report (see paragraph 6.2);
- details of any further revisions identified as being necessary as a result of the five-year review;
- changes to the safety report in response to the CA's previous assessment conclusions, including any safety report revision plan issued by the CA;
- changes resulting from issues raised during interventions made by the CA; and
- further information provided in response to requests from the CA under regulation 7(13) of COMAH during the previous assessment.

6.4 When submitting a revised safety report it is important that the changes are clearly identified, otherwise the CA may have to re-assess the entire report. Where text is amended or added in the body of the report, this should be highlighted by text colour, bold font or some other method that distinguishes the changes from the previous version. Changes should also be clearly signposted in a supporting report (see Appendix 2 for the suggested format of this report).

6.5 Where sections of the safety report have been amended, added to or re-numbered you must ensure that any cross-references to those sections elsewhere in the report are also updated. However, it will not normally be necessary to highlight such changes.

7 What do I need to send to the Competent Authority and when do I need to send it?

What to send

7.1 You should send copies of revisions to your safety report to the CA, together with a supporting document containing the information specified in Appendix 2. You should agree the number of copies to be submitted with the site inspector, as this will be dependent on the nature of the revisions and the extent of assessment required.

7.2 Where the revision contains information previously excluded from the public register on the grounds of national security and/or personal or commercial confidentiality, or if you consider that any new information in the revision should be similarly excluded, you should follow the procedure for exclusion of information from public registers on the HSE website 7. Although safety reports are presently excluded from the public register on national security grounds by virtue of a Direction from the Secretary of State, the public may still request information from safety reports under the Environmental Information Regulations 2004 8, so it is important that you continue to make the CA aware of any material that you consider to be confidential. In cases of doubt you should contact the HSE, EA or Scottish Environmental Protection Agency (SEPA) inspector for your site for further advice.

7.3 Where you have carried out a five-year review and have concluded that it is not necessary to revise your safety report as a result, you should write to the CA to confirm that the report has been reviewed but not revised. In order to demonstrate to the CA that you have undertaken an adequate review you should provide information about how you conducted your review, with justification for your conclusions. This can be achieved by submitting sections 1-6 of the report described in Appendix 2.

7.4

If you review your entire safety report before the five-year review is due (for example as part of a programme of SMS audits or when carrying out interim change reviews) and you conclude that revision of the safety report is not necessary, you should inform the CA that you have done so. You should request that the five-year time period to the next five-year review be reset. Such requests should be supported by the information referred to at paragraph 7.3.

When to send it

7.5 Where modifications are proposed you are required to review and revise your safety report and inform the CA of the details of the revisions in advance of those modifications. You should consult the CA as early as possible before the changes are made, as you risk enforcement action if you implement changes which the CA later judges to be to an unsatisfactory standard. A new installation at an existing establishment will require at least six months notice, but for most modifications a much shorter period will be appropriate. If a modification requires an application for variation of hazardous substances consent, new dangerous substances or increased quantities of existing dangerous substances cannot be brought on site until that has been granted. However, submitting details of revisions to your safety report well in advance is advisable and you need not wait for hazardous substances consent to be granted before informing the CA of the details of your proposed modifications.

7.6 Where you revise your safety report as a result of SMS changes or in response to new facts or knowledge you are required to do so forthwith.

7.7 The five-year review of your safety report should be completed no later than the fifth anniversary of the original submission or last 5-year review and any necessary revisions to the report should be carried out forthwith.

7.8 To determine when to send revisions to the CA you should speak to the HSE, EA or SEPA inspector for your site at the earliest possible opportunity, to confirm that revisions are appropriate and to agree a mutually acceptable date for submitting the revisions to the CA for assessment. In the case of the five-year review it is particularly important that you discuss and agree with your CA inspector the date by which any revisions to your safety report should be submitted. The date agreed should be a realistic one, having regard to the amount of work necessary, and once agreed should be adhered to.

8. Do I need to take any other action?

8.1 Where changes on site that result in revision of the safety report are likely to have implications for the off-site emergency plan you should supply your local authority with details of such revisions.

8.2 If you are a member of a designated domino group you will need to inform other members of the group of any changes on your site which could impact on the risk of a major accident at their establishment.

8.3 Where changes on site that result in revision of the safety report affect information previously given to the public under regulation 14 of COMAH this information should be updated and provided to the public again.

9. Further advice

9.1 For site-specific advice on review and revision of your safety report you should contact the HSE, EA or SEPA inspector for your site.

References

¹ *The Control of Major Accident Hazards Regulations 1999*. SI1999 No. 743 as amended. www.hmso.gov.uk/si/si1999/19990743.htm

² *L111: A Guide to the Control of Major Accident Hazards Regulations 1999*. HSE Books 1999. ISBN 0-7176-1604-5.

³ *HID's approach to as low as reasonably practicable (ALARP) decisions*. www.hse.gov.uk/comah/circular/perm09.htm

⁴ *Guidance on 'as low as reasonably practicable' (ALARP) decisions in Control of Major Accident Hazards (COMAH)*. www.hse.gov.uk/comah/circular/perm12.htm

⁵ *Organisational change and major accident hazards- Chemical Information Sheet No CHIS7*. www.hse.gov.uk/pubns/chis7.pdf

⁶ *Safety Report Assessment Guidance (Technical Aspects) – Plant Modification / Change Procedures*. www.hse.gov.uk/comah/sragtech/techmeasplantmod.htm

⁷ *COMAH – Background notes and brief guidance for operators: exclusion of information from public registers*. www.hse.gov.uk/comah/background/comah99.htm

⁸ *SPC/Permissioning/18 – COMAH: Public Registers, Disclosure of Information and the Environmental Information Regulations 2004*. www.hse.gov.uk/foi/internalops/hid/spc/spcperm18.pdf

Further information

HSE priced and free publications can be viewed online or ordered from www.hse.gov.uk or contact HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995. HSE priced publications are also available from bookshops.

Following this guidance is not compulsory and you are free to take other action. But if you do follow this guidance you will normally be doing enough to comply with the law. CA inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

Appendix I

Table I

Changes that could have significant repercussions	
SMS changes	<ul style="list-style-type: none"> ■ Reorganisation of the management structure. ■ Contractorisation, delayering, demanning, or multi-skilling in relation to the operation or maintenance of the establishment. ■ Changes in health and safety policy, procedures, standards, aims, objectives or priorities, including changes to the MAPP or SMS. ■ Inclusion of an environmental management system (EMS) within the SMS and all changes to the EMS.
Modifications	<ul style="list-style-type: none"> ■ A change in the quantity of a dangerous substance. ■ A change in the phase of a dangerous substance, for example, a change from liquid to gaseous chlorine. ■ The introduction of new dangerous substances or removal of existing dangerous substances. ■ New processes. ■ Changes to storage facilities. ■ Changes to the control systems. ■ Changes to containment systems (both secondary and tertiary). ■ Changes to the mode of delivery or transport of dangerous substances. ■ Changes to the design or location of control rooms and/or the number of people present within them. ■ Changes to the location of occupied buildings and/or the number of people present within them. ■ Changes to the original design parameters such as process operating conditions or practices, changed throughput, design life extensions or removal of safety-critical plant. ■ Construction of a new installation on an existing site. ■ A small modification which could have large consequences, such as a change to the valve type used in a particular line. ■ Introduction of temporary and/or mobile equipment. ■ Repairs to structures or any plant and equipment. ■ Decommissioning of plant and installations. ■ Changes to flood warning procedures, and response to flooding incidents where appropriate.

Table 1

Changes that could have significant repercussions	
New facts/ knowledge	<ul style="list-style-type: none"> ■ A substance which is present on site, but not previously classified as a dangerous substance, is reclassified as dangerous (or the reverse). ■ A change in the risk phrases assigned to a dangerous substance. ■ Advances in knowledge about the behaviour of dangerous substances. ■ Incidents which reveal potentially hazardous reactions or loss of control scenarios not previously considered. ■ Non-COMAH substances found to be capable of creating a major accident hazard. ■ Recommendations made following a public inquiry or major incident. ■ Lessons from worldwide incidents. ■ Advances in technology that might render parts of the safety report out of date very rapidly (though in general, steady advances in technical knowledge can be accommodated at the five-year review stage). ■ Advances in design standards. ■ New scientific or technical research, or other advances (such as reduction in the cost of safety measures) that may affect the decisions previously made about which measures are necessary. ■ Ageing plant and associated performance. ■ Population changes on and off site. ■ Changes in the land-use of surrounding areas. ■ Changes in the conservation designation of surrounding land. ■ Classification or re-classification of surrounding land as environmentally sensitive areas.

Table 2

Interim reviews due to SMS changes, new facts/knowledge or modifications	
Scope	Screen all changes to identify those that could have 'significant repercussions' (see Section 3) with respect to the prevention of major accidents or the limitation of their consequences. Review the risk assessment with respect to major accident hazards to take account of any such changes identified.
Breadth	Review may be limited to those parts of the report affected by the change but where the need for fairly extensive review is identified you should consider reviewing the entire report and notifying the CA that you have done so (under COMAH reg. 8(2)), such that the five-year time period until the next five-year review is due may start again.
Depth	Will be determined by the nature of the changes and any significant repercussions identified. For example, if a new major accident scenario is created as a result of changes, review may need to go into similar depth as preparation of the original safety report. If a particular process ceases, with the result that a major accident scenario is eliminated, further analysis may be required: (i) to ensure that previously identified major accident hazards that were not worst case scenarios are now included; and (ii) to consider the implications of such changes for safe operation of the plant. Furthermore, where the associated plant or installation is being decommissioned the implications of this will need to be taken into account.

Table 2

Five-year review	
Scope	Check that all significant changes over the period have been captured. Screen all changes that did not trigger interim 'change' reviews and/or revision of the safety report to check for cumulative effects. Review the risk assessment to take account of any such changes identified. (Or carry out a detailed review of the risk assessment where interim changes have not been captured). Review any Regulatory activity since last submission that may have indicated a required change in the safety report. Also review the safety report as a whole to check that it still meets the purposes in COMAH Schedule 4, Part 1 and the minimum information requirements in Schedule 4, Part 2.
Breadth	Review the entire report to confirm that the information it contains is still appropriate (ie major accident scenarios still relevant, risk assessments still valid, risks still ALARP, descriptive information still accurate).
Depth	As described above for interim reviews.

Appendix 2

Suggested format for the Supporting Report to accompany a Safety Report Revision

(1) Introduction

A brief outline, including information such as reasons for the review, what was reviewed, how the review was conducted, who was involved and when it took place.

(2) Changes at the establishment/installation since (date)

A brief description of anything that has changed since the safety report was last reviewed (see Table 1 for examples of what to include).

(3) Review of hazard analysis

Includes review of potential major accident scenarios to check that the representative set is still appropriate. No need for full details of review but include overview of what was done, together with any significant findings.

(4) Review of risk assessment

Consideration of whether the risk assessment is still relevant/valid and whether the methods used are still proportionate to the nature of the hazards. Where the hazard level has increased (eg because of changes on site or in response to new facts or technical knowledge) a more rigorous risk assessment process may be required than the one previously employed. There should also be a review of any COMAH improvement plans generated by the duty holder in previous safety report submissions which should demonstrate implementation or the basis for any decisions not to implement.

(5) Review of ALARP demonstration

Consideration of whether the safety report still makes the demonstrations required by Schedule 4, Part 1 of COMAH and whether there are clear linkages between the prevention, control and mitigation measures on site and the major accident scenarios. This should also include a review of the Cost Benefit Analysis where costs were previously used as the basis for decisions not to implement additional controls.

(6) Conclusions

Outcome of the review leading to a decision about whether the safety report requires revision and on what basis (including consideration of significant repercussions – see Appendix 1).

(7) Summary of revisions

7.1 A list of changes to the safety report, in tabular format, including details of the sections/paragraphs revised, reasons for their revision (eg operator's change review/five-year review; safety report revision plan issued by the CA; and outcome of interventions by the CA) and nature of the changes.

7.2 This summary should make a clear distinction between:

- additions (new information);
- revisions (revised information); and
- consolidations (of material previously assessed by the CA, where no further changes have been made).