# CONTRACT Control of Major Accident Hazards

## Understanding COMAH: Performance and Recognition Framework







the Competent Authority

Cyfoeth Naturiol Cymru Natural Resources Wales

#### Introduction

1 The COMAH Regulations place duties on Operators of COMAH establishments to take all measures necessary to prevent major accidents and limit their consequences to people and the environment. The regulations also place duties on regulators to organise an adequate system of inspection. There is a specific duty on the Competent Authority (CA) for COMAH to draw up plans for routine inspections of all COMAH establishments. This must be done on a regular basis. The CA fulfils this responsibility by developing annually reviewed and revised Intervention Plans.

2 This Framework describes how the CA takes account of businesses' performance in controlling major accident risks when planning its inspections and discusses how this may influence the scope and level of each anticipated 'intervention'.

3 COMAH Operators have the opportunity to discuss their draft Intervention Plan prior to the CA finalising the plan. Although these discussions are unlikely to lead to regulatory priorities identified on the plan being removed, Operators can influence the scope of their Intervention Plan by sharing suitable evidence about their performance in controlling major accident risk.

4 The Framework will enable Operators to identify relevant evidence that may enable the CA to reshape the scope or depth of the planned intervention. In addition, where Operators participate in voluntary, Trade Association or other schemes or initiatives that improve their control of major accident risks, these are similarly taken into account.

5 Importantly, the Framework does not affect the CA's responsibilities to develop COMAH Intervention Plans, which will continue to reflect Inspectors' judgements on how they have arrived at the intervention agenda. Where they are unclear, Operators are encouraged to discuss with CA inspection teams how their performance has influenced their Intervention Plan.

#### **Key principles**

- 6 The regulatory principles that underpin this Framework are:
  - a) The CA will plan and prioritise regulatory inspections of all COMAH establishments proportionately according to their major accident hazards potential<sup>1</sup>;
  - b) The highest hazard COMAH sites, which present the greatest risk to people and/or the environment will receive proportionately greater levels of regulatory attention<sup>2</sup>;
  - c) Conversely, proactive inspections will occur less frequently at sites with relatively lower major accident potential;
  - d) The predominant factor in determining levels of inspections will be major accident risk based. Duty holder's performance in complying with the law to control major accident risk will influence the depth and frequency of regulatory scrutiny;
  - e) The CA will take into account other factors when determining the levels of proactive regulatory effort required at each site. This includes evidence of

<sup>1</sup> The extent to which the consequences of the worst case major accident would result in injuries or loss of life among those working or living nearby, or result in widespread damage to the environment.

<sup>2</sup> This reflects the CA's intention to maintain regulatory contact with high hazard sites. The CA adopts a similar approach towards establishments with a national strategic importance.

major accident risk control derived from Operators' own formal assessments and adoption of relevant voluntary or industry based improvement schemes;

e) Operators will be able to determine how their performance has affected their Intervention Plan.

#### **Overview of the Framework**

7 The Framework comprises four main sections which describe the key considerations that influence the development of COMAH Intervention Plans. In brief, these are:

#### **Inherent hazard**

8 The CA prioritises COMAH establishments based on the type and quantity of hazardous substances, the process activities undertaken and the number of people potentially impacted by a major accident. The approach also takes into account the sensitivity of the local natural environment or the presence of any pathways to other sensitive environmental receptors<sup>3</sup>.

#### CA performance information

<sup>9</sup> Performance is based on an index of relative compliance with COMAH and the measures needed to prevent a major accident and limit the consequences, which clearly distinguishes between poor and good performers. Performance is determined in a transparent way and applied consistently by the CA using CA performance data. The CA takes direct account of this data during intervention planning, in both the frequency and depth of its inspections<sup>4</sup>.

#### Third party performance information

10 The CA uses 'third party' information produced for COMAH Operators where this provides valid evidence relating to the control of major hazard risks and provides evidence that the CA would otherwise seek to obtain directly as part of its regulatory functions. COMAH Operators are encouraged to share information relevant to their control of major accident risk with their local CA inspection teams.

#### Earned recognition and performance improvement

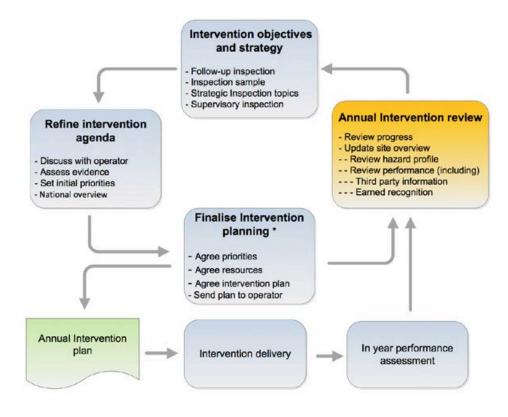
11 The CA will take account of COMAH Operators' adoption of trade association or other voluntary schemes and initiatives that provide valid evidence on the control of major accident risk.

12 The diagram below illustrates how the Framework fits into the CA's planning and priority setting arrangements.

<sup>3</sup> See CA prioritisation methodology

http://www.hse.gov.uk/comah/guidance/site-prioritisation-methodology.pdf

<sup>4</sup> As above





13 The CA encourages COMAH duty holders to discuss their performance in controlling major accident risks with CA Inspectors. CA Inspectors routinely use evidence of an Operator's performance in controlling major accident risks to determine the level and scope of intervention required, target agenda questions or topics and help inspections move swiftly onto on-site verification (spending less time in the site offices reviewing documentation). Duty Holder's performance information will also help set clear parameters for the intervention (based on the revised scope and sample).

14 It is important that Duty Holders check with their COMAH Intervention Manager (CIM) whether the information they hold on their performance has direct relevance to an inspection that the CA plans to undertake at their site. This will ensure that CA resources focus on tasks that add value to the intervention.

#### When to use the Framework

15 The optimum time for COMAH Operators to use the Framework is during the autumn when the CA is developing draft annual COMAH Intervention Plans. Operators that take the opportunity to discuss their draft Intervention Plan should broadly agree with their CIM the relevance of any information they want the CA to take into account, and the most suitable time for it to be sent to the CA.

#### **The Framework**

16 The following sections set out in more detail the main considerations that guide and influence the development of COMAH Intervention Plans.

#### **Inherent Hazard**

17 The extent of the inherent hazards arising from a COMAH establishment will reflect the type and quantity of hazardous substances stored or handled by site, the types of processes used in delivering the business activity and where the business activity is undertaken i.e. the number of people potentially impacted by a major accident and the sensitivity of the local environment5. Inherent hazard factors include:

- a) The hazard type;
- b) The installation/activity type;
- c) The number of people on site and density of the local population;
- d) The sensitivity of the local environment and the existence of pathways between the site and other sensitive environments.

18 The items (a) – (d) focus on relatively 'unchanging' features of a site and its surrounding area. These broad factors relate to: the nature of the hazardous substance present; the types of processes involved in delivering the business activity; the potential impact of a major accident on people or the environment.

19 There are two other important considerations, notably: where large densely populated areas are in scope of the site's major accident scenarios; or there are environmental pathways that may extend damage to the environment beyond the immediate vicinity of the site, and particularly if this affects environmentally sensitive receptors. Any of these factors will move the site into the higher priority groupings.

20 The output from this assessment produces a simple hazard overview, sufficient to allocate the site to one of four broad bands  $(A - D)^6$ , for safety and the environment respectively. Each site therefore receives a two letter ranking. However, the safety and environment bands are not directly equivalent e.g. an AB ranking gives a safety hazard ranking as the highest priority, whilst the environmental hazards are in the second highest grouping.

21 The CA does not visit all COMAH sites each year. On the basis of hazard, one or more inspections will take place annually at sites in the highest priority bands (A). For sites in bands B, C and D, inspections may occur less frequently depending on the nature of the hazard present. Where the hazards are predominantly safety or environment focused, interaction with the site may be led by one part of the CA.

22 Hazard bands set the initial priorities for CA inspections. The scope and depth of the inspections will be dependent on other elements described in this Framework.

<sup>5</sup> CA prioritisation methodology

http://www.hse.gov.uk/comah/guidance/site-prioritisation-methodology.pdf 6 For environmental hazard a more detailed assessment, such as use of the CDOIF environmental risk tolerability approach, might lead to a revision of the hazard banding (eg if there is no MATTE risk from the establishment).

#### **CA** performance information

23 The CA determines performance based on an index of relative compliance with COMAH and the measures needed to prevent a major accident and limit the consequences. This approach clearly distinguishes between poor and good performers. Performance is determined in a transparent way and applied consistently by the CA using CA performance metrics. The CA takes direct account of this data during intervention planning, in both the frequency and depth of its inspections.

24 The performance data used to make decisions relating to interventions includes (in priority order):

- a) Enforcement history (formal cautions and warnings, COMAH Improvement/ Prohibition Notices (INs and PNs); prosecutions; other Notices);
- b) Issues of non-compliance and failure to implement CA actions;
- c) RIDDOR and precursor RIDDOR incidents relating to loss of containment;
- d) Ratings from strategic priorities (< 30 = positive impact on intervention);
- e) Ratings from specified inspection topics;
- f) EPR Rating (Operator Performance & Compliance with Permit) or Compliance Assessment Scheme (CAS) where appropriate;
- g) Pre-receipt agreements prior to safety report submission.

25 Items (a) and (b) above are likely to be because of RIDDOR reportable incidents. Here, any major accident (for example, loss of containment) will automatically trigger a site investigation, which in turn may generate other non-compliances, INs or PNs. RIDDOR data is therefore not included within this Framework.

26 The CA makes a judgement based on the evidence provided from the indicators above as to the nature and scope of a Duty Holder's Intervention Plan. For example, a recent COMAH PN will be a driver for closer attention to a particular site in the following year, and this will be reflected in the Intervention Plan.

#### Prosecutions and other enforcement notices

27 Whilst the incident leading to an enforcement notice or a prosecution will act as the driver for additional scrutiny, the CA will take a view on how well the Duty Holder has performed following any prosecution.

28 Overall, the influence of enforcement on the intervention planning process will depend on the issue, the seriousness of the failure, and the view of the CA as to what that means with regard to the management of risk.

#### Actions following inspections

29 Following an inspection, the approach taken, findings and conclusions are captured in a COMAH Inspection Report. These reports contain detailed technical analysis resulting from onsite demonstrations of risk control and other management systems. Inspection Reports are the main way in which Inspectors document the intervention and record failures in the control of risk and the 'Actions' required to ensure they are addressed.

30 If there is an outstanding Action(s) from the previous year, the CA approach to follow up and close out of the Action will be reflected in the Intervention Plan. A larger number of Actions that appear for a site year on year will similarly influence the level of intervention planned for the site.

#### **Ratings from strategic priorities**

31 The overall picture presented by the ratings and the trend of improving or worsening performance will influence Intervention Plans. A poor performance assessment will reflect the current situation on site, and will not reflect agreed improvement plans which may deliver sustained improvement in subsequent years.

#### Environmental Permitting Regulations (Operator Performance and Compliance with Permit) or Pollution Prevention and Control Regulations (Compliance Assessment Scheme) Rating

32 Where relevant, knowledge of the Environmental Permitting Regulations (EPR) Operator Performance and Compliance rating (input by EA/NRW), or the Pollution Prevention and Control (PPC) Regulations Compliance Assessment Scheme (CAS) rating (input by SEPA) should be taken into account during intervention planning as 'relevant evidence' of overall Operator performance i.e. EPR Rating A = positive impact on intervention; a rating of C and below leads to a negative impact on intervention for following year(s). Similarly, a PPC CAS rating of 'excellent' or 'good' is likely to result in a positive impact (reduction) in intervention, whilst a rating of 'poor' or 'very poor' would be likely to lead to a negative impact on intervention for following year(s).

#### Pre-receipt agreements prior to Safety Report submission

33 COMAH Operators have a duty under COMAH Regulation 8 to review and as necessary revise their COMAH Safety Report within 5 years since their last full review. To make Safety Report handling as efficient as possible the CA holds prereceipt meetings with Operators who are due to submit 5 year review Reports. Pre-receipt meetings are also held where Operators revise their Reports to reflect changes at their sites.

34 Pre-receipt meetings provide the CA and the COMAH Operator with an opportunity to discuss and agree how the Operator should approach the review in terms of scope and depth. Typically, these meetings focus on where the Operator needs to reflect new facts or knowledge in their Report and take account of progress against any Report Revision Plan, inspection or investigation actions that affect the Report.

35 The outcome of the pre-receipt meeting is an agreement between the CA and COMAH Operator that describes the expected scope of changes to the existing COMAH Safety Report. The agreement is important for both parties. The Operator has reassurance that the CA has let them know in advance the areas of the Report that are expected to be reviewed and revised (or do not need to be reviewed and revised). For the CA, the agreement enables CIMs to update the establishment's COMAH Intervention Plan and estimate the time and effort needed to assess the Report following submission. Any deviation from the pre-receipt agreement may lead to additional effort being required to address the unplanned work.

36 In the first instance, the CIM will discuss the omission(s) with the Operator to see if there has been an error in compilation or a simple misunderstanding. Where the omission cannot be quickly remedied, the CIM and the assessment team will make a judgement as to the relative importance of the matter in accordance with Safety Report Assessment Manual (SRAM) instructions. The CIM should record the circumstances and outcome of the deviation from the pre-receipt agreement.

37 In terms of a COMAH Operator's performance, the pre-receipt agreement is particularly relevant where Safety Report content should have been updated to meet the requirements of a Safety Report Revision Plan or to meet an action arising out of an inspection or investigation.

#### Ratings from other specified inspection topics

- 38 In the future, ratings against specified inspection topics will also influence Intervention Plans. Inspection topics include:
- Process Safety Management;
- Electrical, Control & Instrumentation;
- Human Factors;
- Mechanical.

#### Third party performance information

39 The CA will take account of 'third party' information produced for COMAH Operators where this provides valid evidence relating to the control of major hazard risks and provides evidence that the CA would otherwise seek to obtain directly as part of its regulatory functions. Where the Operator can provide valid evidence, CA Inspectors may change or reduce the footprint of the planned regulatory intervention.

40 COMAH Operators are encouraged to assess and where relevant share information on their control of major accident risk with their local CA inspection teams.

41 Where available, Operator's third party information can help to enable a sharper focus during planned interventions, both in terms of pre-planning activities and the depth and breadth of review.

42 The main factors Operators should use in determining the usefulness of information derived from third parties are:

- a) The relevance of the TPV/Assurance scheme to the control of major accident risk;
- b) The competence of the Auditors/Assessors;
- c) The usefulness of the assessment/audit report.

#### The relevance of the TPV/Assurance scheme

42 The scheme (and supporting information) should provide evidence that the CA would otherwise seek to obtain directly as part of its regulatory functions. The questions below will help Operators and CA Inspectors determine the relevance of the TPV/Assurance scheme or other information.

- a) Is the scheme widely recognised within the sector?
- b) Does the scheme contain core elements in health, safety and environment?
- c) To what extent does the scheme relate to the control of major hazard risks on the site?
- d) Has the site operator provided the necessary information to assist the inspectors understanding of the scope of the assessment/audit?
- e) How frequently would a re-assessment or audit take place under the scheme? It is desirable that the period between the assessments/audits is not more than 3 years

#### **Competence of assessors/auditors**

43 The competence of those undertaking the assessment/audit can be determined by the Operator submitting information on the qualifications and experience of assessors/auditors, including their experience of assessment/audit at major hazard sites in the sector.

44 Similarly, Operator's information on how the assessors are trained, their employers, and whether they are 2nd or 3rd party assessors would assist CA Inspector's understanding of the scheme.

#### The usefulness of assessment/audit report

45 The TPV/Assurance report should clearly identify the site's performance in relation to health, safety and environment. Where the report does not specifically mention major accident hazard risks or activities, the COMAH Operator should provide an addendum, which clearly shows how the content of the audit report is relevant to the COMAH intervention topic in question.

#### Agreeing when to send the third party information

46 Once the relevance of the information to the intervention is agreed, the Operator should discuss the timing of when to provide the CA with the information they feel would be useful to CA Inspectors developing the site Intervention Plan. At the agreed time, the full report should be provided to the CA and include any areas identified for improvement by the assessor. The COMAH Operator should also share any improvement plan associated with the third party audit report findings.

#### Earned recognition and performance improvement

47 Earned recognition (ER) and other performance improvement factors can help the CA improve the focus of planned interventions. The extent to which ER will influence the CA's plans will depend on evidence of how these factors have improved the site's approach to controlling risk. Demonstrating this connection and providing the information is vital for Operators who wish the CA to consider this.

48 Similarly, the CA will also take account of COMAH Operator's participation in or adoption of voluntary or other Trade Association schemes and initiatives that provide valid evidence of their control of major accident risk.

49 Operators are encouraged to discuss earned recognition and performance improvement with their CIM. Where relevant to the major hazard intervention, these discussions will be reflected in individual Operator Intervention Plans.

50 In determining the extent of relevant earned recognition or performance improvement activities, Operators may consider:

- a) Does the company have an active programme of improvement in controlling major accident risk?
- b) Does the company participate in sector-wide voluntary schemes or initiatives<sup>7,8</sup> ?
- c) Has the company adopted Process Safety Leadership Principles?

### Does the company have an active programme of improvement in controlling major accident risk?

- 51 Initial key questions are:
  - a) Is the operator a member of a relevant Trade Association (or other sector or industry body) scheme or programme aimed at improving the control of major accident risk?
  - b) Does the Operator have a strategy or process in place to promote the improvement of Process Safety within its sector? This information must be provided to the CA inspection team.
  - c) Can the Operator demonstrate that they actively participate in the Trade Association strategy (or other related initiative) for process safety improvement and describe the positive impacts in The control of major accident risks that it gives them? This information must be provided to the CA inspection team.

#### **Does the company participate in sector-wide voluntary schemes or initiatives?** 52 Examples of good practice in process safety performance and sector level participation are:

- a) In key areas, the Operator can demonstrate that they exceed current 'good practice' and that they continuously review and assess compliance against new and emerging 'best practice', making improvements where appropriate;
- b) The Operator can demonstrate good performance in addressing improvement opportunities highlighted or recommended by the regulator or through internal or external audit and assessment programmes. Actions from improvement opportunities can be shown to be planned, resourced appropriately and closed out according to plan;
- c) Where relevant, the Operator can demonstrate that they actively participate in and contribute to Trade Association committees and working groups;
- d) Where relevant, the Operator can demonstrate that they actively participate in and contribute to other sector-wide initiatives. Examples include the development of guidance through the Chemical and Downstream Oil Industries Forum (CDOIF) or other HSE endorsed guidance and Competent Authority sector forums.
- e) The Operator demonstrates openness with the CA by proactive selfreporting and sharing of detailed internal process safety reports and action plans, which may be used by the CA to help focus and minimise Intervention Plans and visits;

7 Operators using UK Spill Accredited spill responders will be able to provide assurance of their contractors' capabilities. Companies' accreditation is based on specific modules covering different spill types – see http://www.spillonline.org/

8 For the sale and supply of professional pesticides, registration with BASIS would enable the operator to provide evidence to the Competent Authority. This could be in the form of BASIS Store Inspection Scheme membership, qualifications and/or inspection and audit reports, which could assure the CA of adoption of good practice for risk reduction (people and the environment). aboutAccredContr.htm.

- f) The Operator can provide evidence of openness and learning e.g. via engagement with local resilience forums;
- g) The Operator can demonstrate continuous improvement in process safety performance over a prolonged period with examples of significant risk reduction.

#### Has the company adopted Process Safety Leadership Principles?

- 53 Key questions are:
  - a) Is the relevant Trade Association a signatory to the Process Safety Leadership Group (PSLG) Principles of Process Safety Leadership?
  - b) Does the Operator together with its Trade Association have a strategy or process in place to address the PSLG Principles of Process Safety Leadership?

54 Examples of good practice in addressing the PSL Principles of Process Safety Leadership:

- a) The Operator can demonstrate leadership, involvement and accountability at the highest levels with regard to process safety management and performance;
- b) The Operator can demonstrate that they actively seek to improve competency on site e.g. in process safety, by ensuring all levels within the organisation have received relevant training, are aware of the risks of major accidents and understand their role and responsibilities in controlling those risks;
- c) The Operator can demonstrate the promotion of a process safety culture within their organisation and active engagement of the workforce using climate tools and sector level initiatives eg the use of an appropriate safety climate/culture tool related to process safety and relevant actions or outcomes;
- d) The Operator can demonstrate active engagement of the workforce with regard to process safety controls and management by exposure to relevant training (which may be internal or external) at all levels eg *National Skills Academy Process Safety Management Courses or Trade Association training in Emergency Response, Control of Major Hazards, Safety Performance Leading indicators* etc;
- e) The Operator can demonstrate that they have developed and implemented Key Performance Indicators (KPIs) for their organisation, and can explain how this data is compiled, analysed, trends identified and appropriate action is taken to address areas of weakness;
- f) The Operator can demonstrate participation in relevant Trade Association or company initiatives, which show how they contribute to sector level reporting performance eg Recognised Process Safety KPI systems include those published by API, CPS or Cefic;
- g) The Operator can demonstrate participation in relevant Trade Association and company initiatives, explaining how these contribute to sector level reporting, sharing of and learning from, incidents, near misses and good practice.

Published by the Health and Safety Executive on behalf of the COMAH Competent Authority CCA5 11/14