

Staffing and fatigue at onshore major hazard establishments during the coronavirus (COVID-19) pandemic

Introduction

This guidance is for onshore major hazard establishments subject to the Control of Major Accident Hazard Regulations 2015 (COMAH). It is particularly urgent for establishments that are part of the critical national infrastructure.

It covers the potential impact on risk to establishments during the coronavirus (COVID-19) pandemic from:

- operating with reduced staffing;
- loss of key staff; and/or
- increased staff fatigue.

During the pandemic, staffing levels could be reduced, and in some cases significantly so. Even where only a few employees are absent, if they have key capabilities or competencies this could lead to an overall increase in risk.

The extent and duration of that impact is difficult to predict, so operators should assess the risks to:

- ensure the continued safe running of establishments;
- determine the worst-case scenarios when difficult decisions may need to be made to discontinue some or all operations.

It is expected that most operators will have existing management of change processes which such a risk assessment would fall under.

Actions required

Operators of major hazard establishments and installations should:

- establish the staffing levels (including competency levels) required to deliver operational and maintenance functions on site;
- decide what work can safely continue as staffing levels drop;
- implement the guidance on assessing safe staffing levels on page 3;
- implement the guidance on assessing and managing fatigue on page 5.

This new guidance has been developed for short-term variations to the assessment and management of fatigue and staffing, for use during the pandemic only. It gives operators basic guidance to help them make quick risk assessments for peak short-term demand.

Find out more

The relevant legislation:

- There is more information about COMAH on HSE's website: www.hse.gov.uk/comah/
- There is information about the Health and Safety at Work etc Act 1974 on HSE's website: www.hse.gov.uk/legislation/hswa.htm

Assessing safe staffing levels during the coronavirus outbreak

COMAH requires operators to ensure the necessary resources are in place for the safe operation of their establishment. So, it is expected that most will have assessed their minimum staffing levels for emergencies and peak workload. This is covered in Topic 6.3 of *Inspecting Human Factors at COMAH Establishments (Operational Delivery Guide)* www.hse.gov.uk/comah/guidance/hf-delivery-guide.pdf.

The coronavirus outbreak is likely to lead to significant unplanned changes to site staffing. So, it is essential that the risks created by reduced staffing are understood. All assessments (including current ones) should be under continual revision and review as changes occur.

What the risk assessment should consider

There should be a clear definition of the core COMAH-critical tasks that must be undertaken at the establishment in normal, upset and emergency situations, including intensive activities such as start-up after a plant trip.

Quantify the number of staff required to safely continue to undertake these tasks and the competency levels they need to safely complete them.

Include measures that can be taken to reduce demands on staff so safe operation can be continued for as long as possible. For example:

- Can any COMAH-critical tasks be postponed?
- Can tasks be carried out consecutively rather than concurrently?
- Can throughput be reduced without compromising process stability?
- Can the number of batches be reduced?
- Can shifts be rebalanced to ease localised pressures?
- Is partial shutdown an option, eg of part of a plant/operation?
- Can some operations be delayed, eg projects, non-standard work, etc?
- Is an on-call rota available to draw on to cover for last-minute absence?
- Can support be called upon from other sites?

This doesn't just apply to front-line roles. Consider how a lack of support staff would impact operations. Management and supervisory positions will also need to be covered by suitably competent people, especially when it comes to critical decision-making.

When all other measures are exhausted it may be necessary to shut down. It is recommended that the criteria for taking this decision are determined during the assessment phase, and a range of staff are authorised to enact the decision. Do not rely on just one or two people, as they may become ill and be unable to make the decision.

If the decision is to be made by committee, eg the Management Board, make sure you have clear criteria for shutdown to avoid 'risky shift' – group decision-making can result in higher risk-taking behaviours.

Decide how many competent staff are required to manage the site if operations are shut down. For example are there enough emergency staff available and staff to maintain equipment and substances in a stable state after shutdown?

Find out more

There is more information about staffing levels on HSE's website:
www.hse.gov.uk/humanfactors/topics/staffing.htm.

Assessing and managing fatigue during the coronavirus outbreak

As highlighted in Topic 6 of *Inspecting Human Factors at COMAH Establishments (Operational Delivery Guide)* www.hse.gov.uk/comah/guidance/hf-delivery-guide.pdf, managing fatigue during emergency and abnormal situations is particularly important because not doing so can lead to reduced vigilance and attention, and to errors and accidents causing ill health and injury.

Do not underestimate the risks of fatigue – the frequency of accidents and injuries is higher:

- on night shifts;
- after a succession of shifts;
- when shifts are long; and
- when there are inadequate breaks.

These factors might be more widespread during this period of uncertainty as people cover for sickness or other unplanned absences.

Fatigue must be managed like any other risk to safety. If you have a fatigue risk management system, you will have already identified risk factors and now need to activate your contingency plans. You may need to revise existing assessments or carry out new assessments to consider the potential for change due to the coronavirus pandemic.

Such assessments should consider:

- fatigue risk factors and how that might impact the safe operation of your business;
- vulnerabilities to these risks, ie the COMAH-critical tasks carried out by staff at all levels whose performance may be affected by fatigue;
- procedures for, and risks associated with, working extended hours;
- the maximum working hours:
 - shifts should not usually exceed 12 hours;
 - if it is necessary to extend hours beyond this to maintain safe operations, a task- and person-specific risk assessment should be carried out;
 - this should only be exceeded by exception, it should not become routine;
 - evidence shows that simply being awake for 16 hours leads to a detriment in performance similar to being over the drink-driving limit. Operators should consider this in their risk assessment.
- the maximum number of consecutive shifts on days and nights;
- workload (mental and physical) and the critical nature of the work activity.

You will also need to ensure that your management system:

- provides supervisors and managers with information and instructions on how to recognise fatigue symptoms in themselves and others, and states what to do about it;

- sets out how working time will be monitored during this critical period and who will have oversight of this;
- sets out how fatigue management arrangements will be audited;
- records decisions including summarising the risks considered and the corresponding fatigue controls and mitigation measures.

Control measures you might consider include:

- scheduling COMAH-critical tasks, or demanding work, to the start of shifts or to fully staffed shifts;
- ensuring frequent and increased rest periods during extended shifts;
- stopping all non-essential work, such as administrative tasks, to lighten workload;
- reducing throughput or running operations sequentially, instead of concurrently, to lighten workload;
- introducing additional checks or review periods for COMAH-critical tasks to ensure work has been done correctly.

In exceptional circumstances where extended working is necessary, take all reasonable steps to relieve safety-critical workers who have worked in excess of any limits as soon as possible and to ensure that they have enough time to be fully rested before their next period of duty (a minimum of 11 hours).

Find out more

Managing shift work: Health and safety guidance HSE
www.hse.gov.uk/pubns/books/hsg256.htm

Section 6.2 of *Inspecting human factors at COMAH establishments* HSE
www.hse.gov.uk/comah/guidance/hf-delivery-guide.pdf

Managing fatigue using a fatigue risk management plan (FRMP) The Energy Institute
<https://publishing.energyinst.org/topics/human-and-organisational-factors/managing-fatigue-using-a-fatigue-risk-management-plan-frmp>

Managing staff fatigue The Office of Rail and Road
https://orr.gov.uk/__data/assets/pdf_file/0005/2867/managing_rail_fatigue.pdf

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

This document is available at: www.hse.gov.uk/news/managing-comah-during-coronavirus.htm

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