



Office for  
Nuclear Regulation

ONR Technical Inspection Guide (TIG)

# **Dealing with Matters of Evident Concern and Potential Major Concern**

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# Dealing with Matters of Evident Concern and Potential Major Concern

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Issue No.: 9

Publication Date: Sep-22

Next Major Review Date: Aug-25

Record Ref. No.: 2022/56963

## Revision Commentary

Issue No.	Description of Update(s)
6	Minor update to reflect changes to working arrangements with HSE
7	Updated review period
8	New title and content
9	Minor updates to references.

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# 1. Introduction

1. Responsibility for the regulation of site health and safety in the nuclear industry is a core purpose of ONR and transferred from the Health and Safety Executive (HSE) to ONR under Part 3 of the Energy Act 2013 (ref. doc. [1]).
2. ONR is committed to ensuring the industry is taking appropriate measures to control all Site Safety risks arising from their undertakings and reducing those risks as low as is reasonably practicable.
3. The Health and Safety at Work etc. Act 1974 applies to all activities undertaken on ONR's sites (i.e., GB nuclear licensed sites, new nuclear build and authorised defence sites); it falls within the vires of ONR (and hence all warranted inspectors) to enforce the Act and its associated regulations.
4. This technical inspection guide (TIG) provides guidance to all ONR Inspectors on the arrangements for dealing with matters of evident concern and potential major concern on ONR's sites.

## 1.1. Purpose and Scope

5. This TIG does not describe the full range of ONR's Site Safety regulatory activities but seeks to draw the attention of all ONR Inspectors to activities on site where they may need to take action. All ONR inspectors should deal with matters of evident concern and matters of potential major concern found during a planned inspection immediately, whether or not they are related to that inspection.
6. This TIG includes advice to ONR inspectors encountering conventional matters of evident concern, matters of potential major concern and other matters concerning health and safety statutory compliance on ONR's sites.
7. This TIG does not describe the role of ONR in the regulation of fire safety (life safety); this is covered in a separate TIG (ref. doc. [2]). **Note:** All approved ONR TIGs can be accessed on the [ONR website](#).

## 1.2. Definitions

8. Site Safety otherwise known as Conventional Health and Safety (CHS) on ONR's sites refers to management of workplace risks including inter alia fire, explosion, pressure systems, lifting operations, construction operations, work at height, hazardous substances (including asbestos and legionella), work in confined spaces, electricity, machinery safety, workplace transport, exposure to noise and vibration. Some of these areas are also important for nuclear safety.
9. Matters of evident concern (MECs) are defined as those that create a risk of serious personal injury or ill-health and which are observed (i.e., self-evident) or brought to the attention of an ONR inspector. Matters of potential major concern

(MPMCs) are those which have a realistic potential to cause either multiple fatalities or multiple cases of acute or chronic ill-health.

10. ONR has a statutory obligation to regulate fire safety (life safety) on nuclear licensed sites by virtue of the Regulatory Reform (Fire Safety) Order 2005 and the Fire Scotland Act, as amended by the Energy Act 2013. This responsibility, delivered by specialist inspectors within the NIHSS Specialism, is legally independent of nuclear safety requirements or site licence conditions, and is cross-cutting across all ONR divisions, including New Reactors.
11. ONR's Radiological Protection team lead on the regulation of the Ionising Radiations Regulations 2017 (IRR17) at ONR's sites.

## 2. Arrangements

12. All warranted ONR inspectors are expected to respond to matters of evident concern (MEC), and potential major concern if observed on site (refer to Section 3). Any ONR inspector undertaking work on ONR sites involving nuclear site health and safety topics should liaise with the relevant specialist inspector who will seek to provide assistance/support. This includes areas involving but not limited to construction/demolition, asbestos removal, work at height, confined space work and all COMAH related chemicals and plant.
13. ONR regulates the duty to manage asbestos, notifiable non-licensed work with asbestos and licenced asbestos removal on ONR sites, under the Control of Asbestos Regulations 2012. HSE retains national responsibility for the licensing of asbestos removal contractors, including those carrying out work on GB nuclear sites.
14. Any identified life fire safety issues should be referred to ONR specialist fire safety inspectors who undertake regulatory activities in relation to fire life safety, including the approval of building design, plant modification proposals (PMPs), consideration of site-specific assessments and expert assessment of fire incident investigations (refer to ref. doc. [3] for further information on conducting investigations). They can provide advice on process fire precautions, site exercises and emergency response capabilities. They also provide life safety fire assessment to generic design assessment (GDA), and fire safety guidance in the licensing and construction of new reactor sites.

### 3. Matters of Evidence and Potential Major Concern and Enforcement

15. On an ONR site all warranted ONR Inspectors are required to deal with any significant Site Safety hazards they see (or are made aware of) with the potential to cause death or serious injury, as matters of evident and potential major concern (refer to [HSE's Operational Circular OC 18/12](#) (ref. [4])). For further guidance on matters of evident concern and matters of potential major concern, refer to ONRs 'General Inspection Guide' (ref. doc. [5]).
16. In circumstances where an ONR Inspector is of the opinion that a work activity carried on (or likely to be carried on) on an ONR site by, or under the control of, a nuclear licensee, contractor or other person involves (or will involve) a risk of serious personal injury, the ONR inspector should take appropriate action to eliminate or reduce the risk to an acceptable level.
17. If the ONR Inspector is unsure of the appropriate action, they should seek advice from the Nuclear Internal Hazards and Site Safety (NIHSS) Specialism. If no advice is available, the ONR inspector should stop the hazardous activity either by verbal advice or, where there is risk of serious personal injury as described above, by the service of an immediate Prohibition Notice. The Licensee or duty holder would usually be expected to respond to initial (enforcement) advice from an Inspector. The requirement to take formal action, through the issuing of a Prohibition Notice, is uncommon. The inspector's line manager should be informed of any enforcement action as soon as possible.
18. Enforcement decisions relating to nuclear site health and safety matters on an ONR site must involve prompt consideration of any potential implications for other ONR core purposes, including nuclear safety, arising from the proposed action. All inspectors must consult with the appropriate ONR Divisions and any relevant specialisms.
19. If a matter is brought to the attention of an ONR inspector by safety representatives or workers, the ONR inspector should investigate the matter to establish the seriousness of the potential hazard and, if a risk is identified which meets the criteria in ONRs 'General Inspection Guide' (ref. doc. [5]), the inspector should proceed with the principles set out in said document.
20. Examples of matters of evident and potential major concern are set out in Appendix A.
21. Further information is covered in ONR's internal training, N5, available via ONR Academy.

# References

- [1] ONR, “Memorandum of Understanding between ONR and HSE on effective cooperation in regulating conventional (non-nuclear) health and safety,” [Online]. Available: <http://onr.org.uk/agency-agreements-mou.htm>.
- [2] ONR, “NS-INSP-GD-073 - The Regulation of Life Fire Safety on Nuclear Licensed Sites”.
- [3] ONR, “ONR-ENF-GD-005 - Conducting Investigations”.
- [4] HSE, “Matters of Evident Concern and Potential Major Concern - OC 18/12 Version 4,” HSE, [Online]. Available: [https://www.hse.gov.uk/foi/internalops/ocs/001-099/18\\_12.htm](https://www.hse.gov.uk/foi/internalops/ocs/001-099/18_12.htm). [Accessed 2022].
- [5] ONR, “ONR-INSP-GD-064 - General Inspection Guide”.

# Appendix A – Examples of Matters of Evidence and Potential Major Concern

## Electricity

- Inappropriate live working. Exposure to live conductors above SELV voltages.
- Work near live overhead cables, including use of vehicles with lifting potential.
- Use of unsuitable, or suitable equipment in unsuitable conditions (wet conditions, potentially explosive atmospheres).
- Non-use of 110v centre-tapped-to-earth supply for mains-supplied portable tools.

## Confined spaces

- Confined space hazards include lack of oxygen and elevated CO<sub>2</sub> levels. Hazards can arise from the introduction of flammable and toxic material. The range of confined spaces encompasses vessels and tanks to large rooms, depending on the circumstances. Lack of robust isolations.
- ‘Unopened’ confined spaces without warning notices, for example: areas assessed to be treated as confined spaces but within which work is not currently in process.
- Open confined spaces to which access is not restricted whilst confined space entries are in process.
- Confined spaces requiring local rescue arrangements which, during live entry, are either not available or are insufficient, for example: rescue arrangements not in place; breathing apparatus not available; correct PPE not available or not in use; harness or ropes not available or evidence of inadequate communication.

## Lifting Equipment

- Poor compliance with the requirements of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER), illustrated by: inadequate risk assessment and/or a lack of knowledge of the load; working under a suspended load; incorrect positioning of slings; poor general condition of equipment, retest labels out of date. In regard to mobile cranes: incorrect setting up, for example outriggers not used on soft ground; outriggers positioned over underground services.

## Construction/Scaffolding

- Inadequate precautions for working at height.



- Work on defective scaffolding, for example: poor edge protection; instability, poor bracing, not tied to building; overloading; unsafe access to or egress from the working platform.
- Unsafe tower scaffolds, for example: not erected on firm and level ground; castors not seated and braked; outriggers not deployed, or ties not used; tubes/frames/joints/bracing in poor condition; no internal ladder access, boards not fitted.
- Work in unsupported excavations.
- No hard hats in areas with a risk of falling objects or head damage from protruding objects.

### **Asbestos**

- Whenever old (pre-2000) systems or structures are being worked on or when plant is being refurbished or demolished an asbestos hazard could be present. For further guidance on the management of asbestos containing materials on site (including unused/ decommissioned sites or locations) please contact the CHS sub-specialism.

### **Machinery safety**

- Please contact the CHS sub-specialism to discuss any concerns regarding unsafe working practices with powered equipment; exposure to dangerous parts/trapping points or missing, defeated or defective essential safeguards.

### **Substances hazardous to health**

- Please contact the CHS sub-specialism to discuss any concerns regarding substances hazardous to health, for example, spraying of isocyanates without ventilation (LEV) or suitable PPE; legionella risks arising from the use and maintenance of cooling towers; significant use of metalworking fluids during machining operations; welding without use of appropriate engineering controls and/or RPE.
- Use of masonry saws, grinders to cut concrete etc without adequate dust suppression.

### **Noise and vibration**

- Work in noisy areas (where you have to shout to talk to someone 1 m away) for more than 1 hour without adequate hearing protection.
- Refer such matters as the non-use of hearing protection by an employee in a high noise area (or in a designated hearing protection zone to the CHS sub-specialism.

## Transport

- Poor segregation of moving vehicles and pedestrians, including fork lift trucks, for example: no pavements, and/or no barriers in high traffic areas.

## Potential for Fire and Explosion / Inadequate Means of Escape - General Indicative issues to consider:

- Blocked, obstructed, wedged/held open or damaged fire doors.
- Defective, isolated or damaged fire alarm systems or emergency lighting systems.
- Inadequate emergency signage.
- Accumulations of flammable materials in escape routes, for example: corridors and stairways.
- Combustible materials being stored in non-designated laydown areas.
- Uncontrolled hot work with the potential to cause fire.
- Poor storage of highly flammable liquids (HFLs) and flammable solids.

These examples are general in nature, but their presence indicates possible non-compliance with the life fire safety (LFS) requirements, and therefore consideration as a matter of evident concern (MEC). More specific examples of MEC's and possible matters of potential major concern (MPMC) can be found in the life fire safety TIG NS-INSP-GD-073.