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| ONR GUIDE | | | |
| THE REGULATION OF CONVENTIONAL HEALTH AND SAFETY ON GB NUCLEAR SITES | | | |
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1 INTRODUCTION

- 1.1. Responsibility for the regulation of conventional (non-nuclear) health and safety (CHS) in the nuclear industry transferred from HSE to ONR under Part 3 of the Energy Act 2013. ONR is committed to ensuring the industry is taking appropriate measures to control all conventional (non-nuclear) risks arising from their undertakings, reducing those risks as low as is reasonably practicable.
- 1.2. This Inspection Guide provides guidance to inspectors on the arrangements for the regulation of conventional health and safety (including fire safety) on ONR's sites (i.e. GB nuclear licensed sites, new nuclear build, and authorised defence sites).

2 PURPOSE AND SCOPE

- 2.1 This Guide describes certain activities of ONR's Conventional Health and Safety Team (CHST) in their delivery of strategic proactive and reactive regulation of the management of CHS (including fire safety) at GB nuclear sites. It does not describe the full range and wider regulatory activities of the team (such as inspection of management systems), but seeks to draw the attention of ONR inspectors who are not CHS SQEP'd to activities on site upon which they may need to take action. This includes advice to ONR nuclear inspectors encountering conventional (non-nuclear) matters of evident concern, matters of potential major concern, and other matters in regard to health and safety (including fire safety) statutory compliance on ONR's sites.
- 2.2 The Guide refers to arrangements for the delivery of ONR's responsibilities as a Control of Major Accident Hazards Regulations 2015 (COMAH) Competent Authority (CA).
- 2.3 The Guide describes the role of ONR in the regulation of fire safety (life safety).
- 2.4 The Guide describes ONR's working arrangements with HSE, cooperating with one another as independent health and safety regulators in the delivery of both parties' regulatory responsibilities, further to the agreed Memorandum of Understanding between ONR and HSE on Effective Cooperation in Regulating Conventional (Non-nuclear) Health and Safety' (<http://www.onr.org.uk/agency-agreements-mou.htm>).

3 DEFINITIONS

- 3.1 Conventional health and safety (CHS) on ONR's sites refers to risks arising from operations not associated with nuclear material, ionising radiation (the Ionising Radiations Regulations 1999), or nuclear licensed activities (the Nuclear Installations Act 1965 as amended). Workplace risks include: work at height; asbestos; construction operations; work in confined spaces; electricity; machinery safety; workplace transport; lifting equipment; hazardous substances; exposure to noise and vibration; legionella.
- 3.2 ONR has a statutory obligation to enforce fire safety (life safety) on nuclear licensed sites by virtue of the Regulatory Reform (Fire Safety) Order 2005 and the Fire Scotland Act 2005, as amended by the Energy Act 2013. This responsibility, delivered by the Fire Safety Team, is independent of nuclear safety requirements or Site Licence Conditions, and is cross-cutting across all ONR Programmes, including Generic Design Assessment, licensing and nuclear new build.
- 3.3 ONR's sites include GB nuclear licensed, new nuclear build and authorised defence sites.
- 3.4 The Control of Major Accident Hazards Regulations 2015 (COMAH) is enforced in GB by the COMAH CA. ONR are one of five public bodies alongside HSE which comprise

the COMAH CA, working in partnership with the appropriate agency (EA, SEPA or NRW) for the locality of the ONR COMAH establishments.

4 ARRANGEMENTS

- 4.1 CHST inspectors regulate conventional health and safety legislation on ONR's sites, adopting a strategic approach to regulatory interventions. The Team review various elements of the licensee's health and safety management arrangements to ensure systems are robust and compliant with the law. Inspectors will 'track back' to examine any underlying issues to secure sustained change. Where duty-holders are non-compliant with statutory requirements the CHST will take proportionate and appropriate action in accordance with ONR's Enforcement Policy Statement (<http://www.onr.org.uk/documents/2014/enforcement-policy-statement.pdf>) to secure compliance within a reasonable timescale.
- 4.2 CHST inspectors pursue and encourage the adoption of clear, consistent and appropriate performance indicators for conventional health and safety across the nuclear industry, encouraging use of these metrics to target specific and industry-wide improvements; and use of more effective internal assurance processes for conventional health and safety.
- 4.3 The CHST contribute conventional (non-nuclear) health and safety assessment input to ONR's Generic Design Assessment (GDA) and provide conventional health and safety advice to ONR's New Reactors Programme.
- 4.4 The Team co-operates very closely with, HSE, managing the essential operational delivery relationships with our sister regulator on behalf of ONR for the regulation of nuclear new build and other significant construction projects under the Construction (Design and Management) Regulations 2015 (CDM 2015); and regulatory inspection of COMAH substance compliance at ONR's COMAH 2015 establishments.
- 4.5 The CHST regulate 'duty to manage' asbestos containing materials compliance and notifiable non-licensed work on ONR's sites under the Control of Asbestos at Work Regulations 2012. HSE regulate all asbestos licensing under the Control of Asbestos at Work Regulations 2012.
- 4.6 As the lead GB regulator for health and safety, HSE retains regulatory policy responsibility for CHS.
- 4.7 The Fire Safety Team are a qualified and experienced ONR resource for a range of regulatory activities including: the approval of building design; the assessment of conventional fire safety cases; and expert assessment of fire incident investigations. The Team also advise ONR inspectors on: process fire precautions; site demonstrated exercises; and emergency response capability. The Team provide life safety fire assessment to GDA and provide fire safety guidance in the licensing and construction of new reactor sites.
- 4.8 ONR's Radiological Protection Team lead on regulation of the Ionising Radiations Regulations 1999 at ONR's sites, including site radiography when this work is undertaken by the Licensee, ensuring that workers and members of the public are adequately protected from ionising radiation generated on nuclear licensed sites.
- 4.9 All ONR inspectors will respond responsible for matters of evident and potential major concern relating to conventional health and safety.
- 4.10 ONR Guide ONR-INSP-GD-065 'Guidance to support the Memorandum of Understanding between ONR and HSE on effective cooperation in regulating

conventional (non-nuclear) health and safety' is a reference document for ONR and HSE inspectors to support effective cooperation and collaboration.

5 LIAISON

- 5.1 In their regulatory assessment CHST inspectors take into account conflicts arising between nuclear safety and CHS by close liaison with ONR Programmes.
- 5.2 The CHST should be consulted when CHS matters requiring follow-up are identified on ONR's sites by ONR nuclear inspectors.
- 5.3 ONR and HSE assist one another with the provision of specialist inspector resource to support regulatory interventions requiring expert opinion.
- 5.4 The CHST manages the essential operational delivery relationships with HSE on behalf of ONR, including nuclear new build and other significant construction projects under CDM 2015, and regulatory inspection of COMAH substance compliance at ONR's COMAH establishments.
- 5.5 Effective dialogue between ONR inspectors and HSE inspectors acting on behalf of ONR on ONR's sites is essential to deliver appropriate consistency of regulation.
- 5.6 ONR inspectors providing specialist advice and support to HSE, for example the ONR Fire Safety Team giving expert opinion on fire safety legislation in relation to construction work, ship building and ship repair, will similarly liaise closely with HSE inspectors coordinating regulatory interventions.

6 CONVENTIONAL HEALTH AND SAFETY INVESTIGATION SELECTION CRITERIA

- 6.1 The CHST will assess conventional health and safety work-related deaths, accidents, cases of occupational disease, RIDDOR reportable dangerous occurrences, incidents which indicate a likelihood of a serious breach of health and safety law, and major hazard precursor events and incidents for investigation in accordance with ONR's Conventional Health and Safety Incident Selection Criteria - see Table 2 ONR-ENF-GD-005 Revision 0 'Conducting Investigations'.
- 6.2 The selection and investigation of workplace concerns from employees, contractors and members of the public will be assessed with reference to ONR's Conventional Health and Safety Incident Selection Criteria - see Table 2 ONR-ENF-GD-005 Revision 0 'Conducting Investigations', in regard to the likelihood of a serious breach of health and safety law, and with regard to wider site intelligence, and selected for further review appropriate to the circumstances.

7 ENFORCEMENT AND / OR MATTERS OF EVIDENT & POTENTIAL MAJOR CONCERN

- 7.1 Enforcement decisions relating to conventional health and safety matters on an ONR site must involve prompt consideration of any potential implications for nuclear safety arising from the proposed action, via consultation with the appropriate ONR Programme and, for action proposed by HSE inspectors acting on behalf of ONR, via the CHST.
- 7.2 ONR inspectors are required to deal with any significant conventional health and safety hazards they see or are made aware of on an ONR site with the potential to cause death or serious injury, as matters of evident and potential major concern. See HSE's Operational Circular OC 18/12 (<http://www.hse.gov.uk/foi/internalops/ocs/001->

[099/18_12.htm](#)) for further guidance on matters of evident concern and matters of potential major concern. See also paragraph 5.34 of ONR Guide ONR-INSP-GD-064 Revision 2 'General Inspection Guide'. 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. If the ONR inspector is unsure of the appropriate action they should seek advice from the CHST. If no advice is available, the ONR inspector should stop the hazardous activity, either by verbal advice or, where there is an imminent risk of serious personal injury as described above, by the service of an immediate Prohibition Notice. The inspector's line manager should be informed of enforcement action as soon as possible.

7.3 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 para 7.2. above the inspector should proceed in accordance with the principles set out in the said paragraph.

7.4 See Annexe A: Matters of evident and potential major concern, below.

8 REFERENCES

The following references are applicable:

- 1) Memorandum of Understanding between ONR and HSE on Effective Cooperation in Regulating Conventional (Non-nuclear) Health and Safety
<http://www.onr.org.uk/agency-agreements-mou.htm>
- 2) ONR's Enforcement Policy Statement
<http://www.onr.org.uk/documents/2014/enforcement-policy-statement.pdf>
- 3) ONR Guide ONR-ENF-GD-005 Revision 0 'Conducting Investigations'.
<http://www.onr.org.uk/operational/investigations/onr-enf-gd-005.pdf>
- 4) HSE publication OC 18/12 - Matters of Evident Concern and Potential Major Concern
http://www.hse.gov.uk/foi/internalops/ocs/001-099/18_12.htm
- 5) ONR Guide ONR-INSP-GD-064 Revision 2 'General Inspection Guide'
http://www.onr.org.uk/operational/tech_insp_guides/ns-insp-gd-064.pdf

9 ANNEX A – MATTERS OF EVIDENT AND POTENTIAL MAJOR CONCERN

Definitions

1. A matter of evident concern (MEC) is a matter that creates a risk of serious personal injury or ill-health and which is either observed or brought to the attention of an ONR inspector.

2. A matter of potential major concern (MPMC) is a matter which has a realistic potential to cause either multiple fatalities or multiple cases of acute or chronic ill-health.

Indicative issues to consider

Fire and explosion

1. Blocked means of escape e.g. locked fire doors etc.
2. Uncontrolled open fire doors on a protected route.

3. Accumulations of flammable materials in escape routes e.g. corridors and stairways.
4. Hot work with the potential to cause fires.
5. LPG storage and associated pipework e.g. underground pipework, the security of the store, proximity of vehicles.
6. Poor storage of highly flammable liquids (HFLs) and flammable solids.

Electricity

7. Inappropriate live working.
8. Work near live overhead cables.
9. Use of unsuitable equipment or suitable equipment in unsuitable conditions (temporary cables in long grass, wet conditions, potentially explosive atmospheres etc.).
10. Non-use of 110v centre-tapped-to-earth supply for portable tools.

Confined spaces

11. Confined space hazards include lack of oxygen and elevated CO2 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 circumstances.
12. 'Unopened' confined spaces without warning notices, i.e. areas assessed to be treated as confined spaces but within which work is not currently in process.
13. Open confined spaces to which access is not restricted whilst confined space entries are in process.
14. 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 personal protective equipment not available or not in use; or harness and ropes not available; or evidence of inadequate communication.

Lifting equipment

15. 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

16. Inadequate precautions for working at height.
17. 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.
18. 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.
19. Work in unsupported excavations.
20. No hard hats in areas with a risk of falling objects or head damage from protruding objects.

Asbestos

- 21 Whenever old systems are being worked on or when plant is being 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 ONR's CHST.

Machinery safety

22. Please contact ONR's CHST to discuss any concerns regarding unsafe working practice with powered equipment; exposure to dangerous parts/trapping points; or missing, defeated or defective essential safeguards.

Substances hazardous to health

23. Please contact ONR's CHST to discuss any concerns regarding substances hazardous to health, for example, spraying of isocyanates without local exhaust ventilation (LEV) or suitable PPE; legionella risks arising from the use and maintenance of cooling towers; or the significant use of metalworking fluids during machining operations.

Noise and vibration

24. Refer such matters as the non-use of hearing protection by an employee in an obviously high noise area or in a designated hearing protection zone to ONR's CHST.

Transport

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