

Construction (Design and Management) Regulations			
Doc. Type	ONR Technical Inspection Guide (TIG)		
Unique Doc. ID:	NS-INSP-GD-074	Issue No.:	1
Record Reference:	2021/57878		
Date Issued:	Oct-2021	Next Major Review Date:	Oct-2023
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Revision Commentary:	First issue.		

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1. Introduction

- 1.1. The Construction (Design and Management) Regulations 2015 (CDM 2015) is the main set of regulations for managing the health, safety, and welfare of construction projects in Great Britain (GB).
- 1.2. The Construction (Design and Management) Regulations were first introduced in 1994 following publication of European Directive 92/57/EEC on minimum safety and health standards for temporary or mobile construction sites. The regulations were revised in 2007, and the latest version came into force on 6 April 2015 and set out what people involved in construction work need to do to protect themselves and anyone else the work affects from harm arising from construction work.
- 1.3. CDM 2015 is a relevant statutory provision (RSP) made under the Health and Safety at Work etc. Act 1974 (HSWA), which ONR enforces on GB nuclear sites, authorised defence sites, and new nuclear build sites.
- 1.4. CDM 2015 has a wide scope and applies to all construction work throughout the entirety of the construction process from concept to completion, which includes, but is not limited to:
 - design, new build, demolition, modifications, refurbishments, extensions, conversions, repair, and maintenance of a building and/or a civil structure.
- 1.5. All ONR regulated sites carry out work that falls under the scope of CDM 2015 throughout its life cycle, from design concept to decommissioning and demolition. CDM 2015 also has implications on designs prepared outside of GB, which is an important consideration during the Generic Design Assessment (GDA) process for new nuclear power stations.
- 1.6. It is the responsibility of the dutyholders, including clients (usually the licensees, but can be authorisees on an authorised defence site, or requesting parties during GDA, for the brevity of this document, they are all referred as 'licensees'), designers, and contractors, in accordance with CDM 2015, to ensure the health, safety, and welfare of workers and others during the entirety of construction projects on a ONR regulated site. Dutyholders are also responsible for making, implementing, and ensuring their arrangements and practices meet the requirements of CDM 2015. ONR inspects the compliance of all dutyholders' arrangements and practices with CDM 2015 to judge their suitability and the adequacy of their implementation.
- 1.7. To support ONR inspectors undertaking compliance inspections, ONR produces a suite of guides to assist inspectors in making regulatory judgements and decisions in relation to the adequacy of compliance, and the safety of activities on site. This inspection guide is one amongst the suite of

documents provided by ONR for this purpose and focuses on CDM 2015 compliance inspections.

- 1.8. Due to the wide scope of CDM 2015, it links into other ONR guidance, for example ONR Technical Assessment Guide NS-TAST-GD-017 (Civil Engineering) [1], which outlines the due considerations given to CDM 2015 during the assessment of safety cases. Appendix B contains a more detailed mapping of CDM 2015 with the relevant Licence Conditions (LCs) and ONR guidance, which outlined the areas of overlap and limitations of LCs and ONR guidance over CDM 2015.

2. Purpose and Scope

- 2.1. The purpose of this guidance is to promote a consistent approach to compliance inspection of all types of construction projects on ONR regulated sites, from concept to completion, against CDM 2015 requirements. This guidance provides a framework for the inspection of construction activities, within which ONR inspectors are expected to exercise their discretion in formulating regulatory judgements.
- 2.2. It is important to note that this guidance is not a replacement of the existing HSE guidance on CDM 2015, L153 [2], which has a much wider audience. This guidance focuses on the application of CDM 2015 in the nuclear industry. It should not be regarded as either comprehensive or mandatory.
- 2.3. The focus of this guidance is on the arrangements and practices made by licensees and not the other dutyholders, for example the contractors, as licensees often fulfil multiple CDM 2015 roles, including client, principal designer, and principal contractor. They also set out arrangements and practices that other dutyholder are often required to adhere with. The regulation of other dutyholders may be incorporated in the future revisions of this guidance.
- 2.4. This guidance is divided into three main elements:
 - Purpose of CDM 2015
 - Guidance on arrangements for CDM 2015
 - Guidance on inspection of arrangements and their implementation

3. CDM 2015

- 3.1. CDM Regulations is a RSP made under HSWA, it was first introduced in 1994, followed by a revision in 2007 and again in 2015. The latest revision came into force on 6 April 2015.
- 3.2. CDM 2015 applies to all types of construction projects in GB and has implications on designs prepared outside of GB, which is a key consideration during the GDA process.
- 3.3. CDM 2015 is made of five parts covering 39 regulations, five schedules and six appendices. Below is a brief outline of the main parts of CDM 2015:
 - Part 1 – Commencement, interpretation, and application
This part includes three regulations (Regulations 1 to 3). Regulation 2 is important as it contains definitions to key terminologies, and Regulation 3 sets out the scope of CDM, which extends to outside of GB.
 - Part 2 – Client duties
This part includes three regulations (Regulations 4 to 7), they are particularly relevant to licensees.
 - Part 3 – Health and safety duties and roles
This part includes eight regulations (Regulations 8 to 15), each covering different duties and roles on a construction project.
 - Part 4 – General requirements for all construction sites
This part includes 20 regulations (Regulations 16 to 35) specific to the health, safety, and welfare, including fire safety on construction sites.
 - Part 5 – General
This part covers four regulations (Regulations 36 to 39) on administrative requirements of CDM 2015. Regulation 36 sets out the enforcement authority of fire safety on a construction site, which is ONR on GB nuclear sites, authorised defence sites, and new nuclear build sites.

4. Purpose of CDM 2015

- 4.1. CDM 2015 has a wide scope and applies to all construction work throughout the entirety of the construction process from concept to completion, which includes, but is not limited to:
- design, new build, demolition, modifications, refurbishments, extensions, conversions, repair, and maintenance of a building and/or a structure.
- 4.2. CDM 2015 sets out what people involved in construction work need to do to protect themselves and anyone else the work affects from harm arising from construction work. It is structured to address the key elements to securing construction health and safety including:
- managing the risks by applying the general principles of prevention
 - this is to avoid, evaluate & control risk appropriately at source.
 - appointing the right people and organisations at the right time
 - those appointing should ensure that the people and organisations that they intend to appoint have the necessary skills, knowledge and experience as well as the organisational capability to discharge their work safely.
 - making sure everyone has the information, instruction, training, and supervision they need to carry out their jobs in a way that secures health and safety
 - information and supervision should be proportionate and effective to the size and complexity of the construction project.
 - dutyholders cooperating and communicating with each other and coordinating their work
 - this will ensure that everyone understands the risks and the measures in place to control them.
 - consulting workers and engaging with them to promote and develop effective measures to secure health, safety, and welfare
 - this should be 'two-way' process aimed to identify risks, ensures appropriate control and increases commitment.

5. Guidance on Arrangements for CDM 2015

5.1. CDM 2015 links into several Licence Conditions (LCs), for example but not limited to LC 19 to 22, LC 26, and LC 35. Appendix B gives a mapping between CDM 2015 and LCs, as well as other relevant ONR guidance, which outlined that LCs and the ONR guidance have limited span over CDM 2015.

5.1. Part 1 – Commencement, Interpretation, and Application

5.2. All dutyholders should also be cognisant of the wide scope of CDM 2015 as is set out in Regulation 3. More specifically, that CDM 2015 applies to the whole construction process, from concept to completion, on all types of construction projects in GB. CDM 2015 also has implications on designs prepared outside of GB, which is a key consideration during the GDA process.

5.3. All dutyholders should be cognisant of the key terminologies in CDM 2015 as they are set out in Regulation 2, especially those that:

- specify types of work: ‘construction work’, ‘design’, ‘project’, ‘structure’, ‘construction phase’, ‘pro-construction phase’, ‘working day’, ‘workplace’, and ‘place of work’;
- specify key roles: ‘client’, ‘designer’, ‘contractor’, ‘principal contractor’, and ‘principal designer’; and
- specify key information: ‘construction phase plan’, ‘health and safety file’, ‘pre-construction information’, and ‘site rules’.

5.4. The HSE guidance on CDM 2015 [2] contained the useful table below that summarised the different roles and duties under CDM 2015.

Table 1 - Roles and Duties under CDM 2015

CDM dutyholders¹: Who are they?	Summary of role/main duties
<p>Clients are organisations or individuals for whom a construction project is carried out.</p>	<p>Make suitable arrangements for managing a project. This includes making sure:</p> <ul style="list-style-type: none"> ▪ other dutyholders are appointed; ▪ sufficient time and resources are allocated. <p>Make sure:</p> <ul style="list-style-type: none"> ▪ relevant information is prepared and provided to other dutyholders; ▪ the principal designer and principal contractor carry out their duties; ▪ welfare facilities are provided.
<p>Designers are those, who as part of a business, prepare or modify designs for a building, product or system relating to construction work.</p>	<p>When preparing or modifying designs, to eliminate, reduce or control foreseeable risks that may arise during:</p> <ul style="list-style-type: none"> ▪ construction; and ▪ the maintenance and use of a building once it is built. <p>Provide information to other members of the project team to help them fulfil their duties.</p>
<p>Principal designers² are designers appointed by the client in projects involving more than one contractor. They can be an organisation or an individual with sufficient knowledge, experience and ability to carry out the role.</p>	<p>Plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project. This includes:</p> <ul style="list-style-type: none"> ▪ identifying, eliminating or controlling foreseeable risks; ▪ ensuring designers carry out their duties. <p>Prepare and provide relevant information to other dutyholders.</p> <p>Provide relevant information to the principal contractor to help them plan, manage, monitor and coordinate health and safety in the construction phase.</p>

¹ Organisations or individuals can carry out the role of more than one dutyholder, provided they have the skills, knowledge, experience and (if an organisation) the organisational capability to carry out those roles in a way that secures health and safety.

² Principal designers are not a direct replacement for CDM co-ordinators. The range of duties they carry out is different to those undertaken by CDM co-ordinators under CDM 2007.

CDM dutyholders ¹ : Summary of role/main duties Who are they?	
<p>Principal contractors are contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor.</p>	<p>Plan, manage, monitor and coordinate health and safety in the construction phase of a project. This includes:</p> <ul style="list-style-type: none"> ▪ liaising with the client and principal designer; ▪ preparing the construction phase plan; ▪ organising cooperation between contractors and coordinating their work. <p>Ensure:</p> <ul style="list-style-type: none"> ▪ suitable site inductions are provided; ▪ reasonable steps are taken to prevent unauthorised access; ▪ workers are consulted and engaged in securing their health and safety; and ▪ welfare facilities are provided.
<p>Contractors are those who do the actual construction work and can be either an individual or a company.</p>	<p>Plan, manage and monitor construction work under their control so that it is carried out without risks to health and safety.</p> <p>For projects involving more than one contractor, coordinate their activities with others in the project team – in particular, comply with directions given to them by the principal designer or principal contractor.</p> <p>For single-contractor projects, prepare a construction phase plan.</p>
<p>Workers are the people who work for or under the control of contractors on a construction site.</p>	<p>They must:</p> <ul style="list-style-type: none"> ▪ be consulted about matters which affect their health, safety and welfare; ▪ take care of their own health and safety and others who may be affected by their actions; ▪ report anything they see which is likely to endanger either their own or others' health and safety; ▪ cooperate with their employer, fellow workers, contractors and other dutyholders.

5.2. Part 2 – Client Duties

5.5. On ONR regulated sites, licensees are usually the 'client' under CDM 2015, therefore this Part is particularly relevant to all licensees.

5.6. Licensees shall have arrangements in place to identify construction work activities that fall under the scope of CDM 2015.

- 5.7. Licensees shall make suitable arrangements for managing a project, as well as ensuring these arrangements are maintained and reviewed throughout the project, including allocation of sufficient time and other resources.
- 5.8. Licensees shall provide pre-construction information as soon as practicable to every designer and contractor appointed, or being considered for appointment, to the project. Licensee should consider consulting Appendix 2 of HSE's guidance on CDM 2015 [2] to ensure requirements on the pre-construction information have been met.
- 5.9. Licensees shall have arrangements in place to identify and appoint the principal designer and principal contractor in writing as appropriate.
- 5.10. Licensees shall act as an intelligent customer and ensure key information such as the construction phase plan, and if required, the health and safety file are prepared at dedicated stages of a construction project by the appropriate parties such as principal designer and principal contractor. Licensee should consider consulting Appendices 3 and 4 of HSE's guidance on CDM 2015 [2] to ensure requirements on the construction phase plan and the health and safety file have been met.
- 5.11. Licensees should have arrangements in place to identify the notifiable work as outlined by Regulation 6(1) and Schedule 1 of CDM 2015. Licensees shall give notice in writing to ONR following the instructions on ONR's website 'Notify ONR' under 'Construction Project Notifications' (<https://www.onr.org.uk/notify-onr.htm>) as soon as is practicable on a notifiable project and before the construction phase begins.

5.3. Part 3 – Health and Safety Duties and Roles

- 5.12. All dutyholders should have arrangements in place to identify the key roles and responsibilities involved in construction work activities that fall within the scope of CDM 2015. The arrangements should outline how the roles defined in CDM 2015 such as 'client', 'designer', 'contractor', 'principal contractor', and 'principal designer' are fulfilled.
- 5.13. Licensees shall act as an intelligent customer and take reasonable steps to satisfy themselves that the designers and contractors are competent and capable, both individually and as organisations, to be able to fulfil the roles that they are appointed to undertake, which includes ensuring the health, safety, and welfare of workers and others affected by the project.
- 5.14. All dutyholders should have appropriate arrangements in place to ensure the general duties as outlined in regulation 8 including where applicable, the duty to refuse an appointment, duty to cooperate, duty to report and duty to provide information or instruction are fulfilled by appropriate parties involved in a construction project throughout its lifecycle.

- 5.15. Licensees should be cognisant of the duties of designers (as outlined in Regulation 9), principal designer (Regulations 11 and 12), principal contractor (Regulations 12 to 15) and contractors (Regulation 15), and act as intelligent customers to ensure relevant parties have arrangements in place to identify and ensure the compliance with their duties as outlined in CDM 2015. If a design is prepared or modified outside GB for use in construction work in GB, for example for new nuclear power plant, it is the duty of the licensee (including requesting party in the GDA process) to ensure that Regulation 9 is complied with.
- 5.16. If a licensee appoints itself to undertake the principal designer and/or the principal contractor role(s), in addition to being the client, then the licensee shall ensure arrangements are in place to ensure it fulfils the relevant duties as outlined in Part 3 of the regulations.

5.4. Part 4 – General Requirements for All Construction Sites

- 5.17. Part 4 sets out requirements for managing work carried out on a construction site and does not include the design element of a construction project. Part 4 is used in conjunction with Schedules 2 and 3 of CDM 2015.
- 5.18. Licensees should be cognisant of the requirements of this Part, and act as an intelligent customer to ensure the principal contractor and contractors have arrangements to manage the health, safety, and welfare of all persons on construction sites. Furthermore, licensees should be cognisant of their duties as a client in facilitating sharing of adequate information and/or instruction between all parties that have a duty under CDM 2015, as well as making suitable arrangement to ensure the facilities listed in Schedule 2 are provided in respect of any person(s) carrying out construction work. Licensees should recognise where cooperation will be required between the principal contractor and additional contractors in ensuring the requirements of Part 4, Schedules 2 and 3 of CDM 2015 are fulfilled.
- 5.19. If a licensee appoints itself to undertake the principal designer role, then the licensee shall be cognisant of its duties in liaising with the principal contractor and share the relevant information to the planning, management, and monitoring of the construction phase, and the coordination of health and safety matters during the construction phase.
- 5.20. If a licensee appoints itself to undertake the principal contractor and/or contractor role, then the licensee shall have arrangements in place to ensure the adequate management of a construction site in accordance with the requirements outlined in Part 4, Schedules 2 and 3 of CDM 2015.

- 5.21. Licensee should be cognisant that CDM 2015 includes considerations for fire safety, and emergency response and arrangements to mitigate the risk of fire. Further guidance is provided by HSG168 (Fire safety in construction) [3].

5.5. Part 5 – General

- 5.22. Licensee should be cognisant that enforcement of fire safety on construction related activities are covered by CDM 2015 and/or fire regulations, whichever is the most appropriate. Further guidance on fire regulations is provided by ONR guidance NS-INSP-GD-073 (The regulation of life fire safety on nuclear licensed sites) [4].

5.6. Schedule 1 – Particulars to be Notified Under Regulation 6

- 5.23. Licensees shall recognise the requirement placed upon them to make arrangements to notify ONR on construction projects above the threshold as outlined in Regulation 6 and include the particulars as outlined in Schedule 1 of CDM 2015.

5.7. Schedule 2 – Minimum Welfare Facilities Required for Construction Sites

- 5.24. Licensees shall make arrangements to provide the facilities required by Schedule 2 of CDM 2015 in respect of any person(s) carrying out construction work.

5.8. Schedule 3 – Work Involving Particular Risks

- 5.25. Licensees must be cognisant of their duties as a client and act as an intelligent customer to ensure the construction phase plan contains sufficient information, including the specific measures for work involving the ten particular risks listed in Schedule 3 of CDM 2015.
- 5.26. If a licensee appoints itself to undertake the role of principal designer and/or principal contractor, then the licensee must be cognisant of the additional duties in those roles to prepare an adequate construction plan that includes specific measures to manage work listed in Schedule 3 of CDM 2015.

6. Guidance on Inspection of Arrangements and their Implementation

- 6.1. This part of the guidance is to assist ONR inspectors in judging the adequacy of a licensee’s arrangements and the implementation of those arrangements. This section is neither exclusive nor exhaustive to cover the full scope of CDM 2015, however it provides a list of aspects of CDM 2015 requirements that inspectors should consider examining during routine inspections.
- 6.2. Inspectors should consider engaging and liaising with Nuclear Internal Hazards and Site Safety (NIHSS) specialism for support in making appropriate regulatory judgements regarding CDM 2015.
- 6.3. Inspectors should consider:
- Establish whether the work encountered falls under the scope of CDM 2015. Below is a list of non-exhaustive examples of work activities that are likely to fall under the scope of CDM 2015 on an ONR regulated site:

Table 2 - Examples of activities that are likely to fall under the scope of CDM 2015

Principal construction work activities	Specific examples of work that are likely to fall under the scope of CDM 2015 on a ONR regulated site
Contractor and supply chain management	Use of contractors to design, construct, maintain, inspect, demolish any structures, plant, and facilities on site.
Design activities	Design of structures, plant, and facilities. This could include initial design activities of plant, structures, and reactors.
	Design modifications.
	Permissioning activities associated with design activities.
Installation and commissioning of new plant	Installation of in-cell plant and equipment, for example cell high pressure wash systems.
	Installation of fixed containment barriers.
	Upgrade of cell shield doors.
	New plant for POCO/decommissioning.
	Commissioning of new plant.

Principal construction work activities	Specific examples of work that are likely to fall under the scope of CDM 2015 on a ONR regulated site
Installation and commissioning of new plant	Inactive and active commissioning of new plant and facilities.
	Reviewing pre-inactive commissioning safety report (PICSR) and pre-active commissioning safety report (PACSR).
	Consents to move to the next stage of construction or installation.
	Permissioning activities associated with installation of new plant.
	installation of perimeter intrusion detection systems (PIDS) or hostile vehicle mitigation (HVM)
Post-Operations Clean-Out (POCO) activities	Cleaning of in-situ pipework etc.
	Dismantling of fixed plant to gain access to other pieces of plant.
	Temporary works to facilitate construction work.
	Permissioning activities associated with general POCO activities.
Standard construction activities.	Pouring slabs for new facilities.
	Form work and falsework
	Civil engineering related work
	Structural steel erection
	Tunnelling
	Excavation work.
	Demolition activities and temporary works activities.
	Control of high fire risk activities including hot works, use of flammable gases and transient combustibles
Permissioning activities associated with general construction work.	
Decommissioning activities.	Pond decommissioning.
	Size reduction works.
	Asbestos removal projects requiring a F10 notification.
	Permissioning activities associated with decommissioning activities.

Principal construction work activities	Specific examples of work that are likely to fall under the scope of CDM 2015 on a ONR regulated site
Plant modification activities (PMPs)	Permissioning activities associated with PMPs including design.
Periodic safety reviews (PSR)	Permissioning activities associated with PSR activities involving construction work.
Inspection, maintenance and asset management activities.	Maintenance of cooling systems and other existing plant/ fixed installations.
	Large scale glazing replacement activities.
	Outage activities including drum screen inspection/repair/maintenance works.
	Permissioning activities associated with inspection, maintenance, and asset management activities.

- Establish whether the licensee has adequate arrangements in identifying and managing the non-radiological hazards and risks associated with any of the work activities that fall under the CDM 2015 scope. Inspectors should be cognisant that Schedule 3 of CDM 2015 includes work with ionizing radiation requiring the designation of controlled or supervised areas under Regulation 17 of the Ionising Radiations Regulations 2017, and that fire safety on construction work is governed by CDM 2015 and/or fire regulations, whichever is the most appropriate.
- Establish the size and complexity of the construction activities and/or associated projects and take a proportionate regulatory approach.
- Establish whether the key roles have been identified within all dutyholders' arrangements including client, principal designer, principal contractor, designer, and contractors. Inspectors should be cognisant that the scope of CDM 2015 extends to designers working on those designs prepared or modified outside of GB.
- Establish whether all dutyholders have understood their duties under CDM 2015 and how they satisfy themselves that they have met the requirements of CDM 2015. Inspectors should be cognisant that the licensee may undertake multiple roles under CDM 2015, and arrangements may be complicated and interwoven with other arrangements by the licensee, for example safety cases, and arrangements by other dutyholders such as designers and contractors.
- Establish whether the licensee has made adequate arrangements in notifying ONR of the construction work.

- Establish what arrangements have been put in place to ensure the key information required by CDM 2015 (pre-construction information, construction phase plan, and health and safety files) have been developed, used, managed, and kept up to date by dutyholders. Inspectors should be cognisant that the information might be captured under various formats and names, including the use of Building Information Modelling (BIM) (Appendix B of NS-TAST-GD-017 [1] provides further guidance on BIM). Inspector should consider consult Appendices 2 to 5 of the CDM 2015 Guidance L153 [2] to establish whether the information is adequate.
 - Establish how dutyholders' arrangements demonstrate principles of prevention as set out in Appendix 1 of the CDM 2015 Guidance L153 [2].
- 6.4. Inspectors should consider consulting the CDM 2015 capability map (see Appendix A) as a framework to evaluate a licensee's arrangements in compliance with CDM 2015. Inspectors should note that the capability map is neither comprehensive nor exhaustive and should be used as outlined in Section 10 of this guidance.
- 6.5. Whilst on site inspector should consider taking a representative sample based on the size and complexity of construction work activities to establish:
- What information is available and easily accessible to anyone working on site, for example but not limited to, an up-to-date copy of the F10 notice is displayed in the construction site office in a form that can be easily understood;
 - who controls the site;
 - what the arrangements are in managing the site and the people on-site and nearby (for example site rules and how they satisfy the requirements of Part 4 of CDM 2015); and
 - whether the site has adequate welfare facilities as outlined in Schedule 2 of CDM 2015.
- 6.6. In the case that inspectors have encountered a situation on a construction site that has potential risk to cause death and/or serious personal injury, inspectors should consider consulting ONR guidance NS-INSP-GD-051 (Dealing with matters of evident concern and potential major concern) [5] and take appropriate actions to eliminate or reduce the risk to an acceptable level.

7. Further Reading

1. HSE website construction pages
(<https://www.hse.gov.uk/construction/index.htm>)
2. HSG150 – Health and safety in construction (Third edition, 2006)
(<https://www.hse.gov.uk/pubns/priced/hsg150.pdf>)
3. INDG411 – A short guide for clients on CDM 2015 (Revision 1, 2015)
(<https://www.hse.gov.uk/pubns/indg411.pdf>)
4. CIS80 – Construction Phase Plan for builders (2015)
(<https://www.hse.gov.uk/pubns/cis80.pdf>)
5. Leadership and Worker Involvement Toolkit for construction industry
(<https://www.hse.gov.uk/construction/lwit/index.htm>)
6. CITB website (<https://www.citb.co.uk/about-citb/partnerships-and-initiatives/construction-design-and-management-CDM-regulations/>) including CDM 2015 overview, industry guidance, and CDM 2015 Wizard app.

8. References

- [1] Office for Nuclear Regulation, “ONR Technical Assessment Guide NS-TAST-GD-017 Revision 4 (Civil Engineering),” November 2020. [Online]. Available: https://www.onr.org.uk/operational/tech_asst_guides/ns-tast-gd-017.htm.
- [2] Health and Safety Executive, “Managing health and safety, Guidance on CDM Regulations,” 2015. [Online]. Available: <https://www.hse.gov.uk/pubns/priced/l153.pdf>.
- [3] Health and Safety Executive, “HSG168 - Fire safety in construction (Second edition),” 2010. [Online]. Available: <https://www.hse.gov.uk/pubns/priced/hsg168.pdf>.
- [4] Office for Nuclear Regulation, “ONR Technical Inspection Guide NS-INSP-GD-073 Issue 1 (The regulation of life fire safety on nuclear licensed sites),” April 2021. [Online]. Available: https://www.onr.org.uk/operational/tech_insp_guides/ns-insp-gd-073.pdf.
- [5] Office for Nuclear Regulation, “ONR Technical Inspection Guide NS-INSP-GD-051 Issue 8 (Dealing with matters of evident concern and potential major concern),” 2021. [Online]. Available: https://www.onr.org.uk/operational/tech_insp_guides/ns-insp-gd-051.pdf.
- [6] Office for Nuclear Regulation, “ONR Safety Assessment Principles for Nuclear Facilities Revision 1,” 2014. [Online]. Available: <https://www.onr.org.uk/saps/saps2014.pdf>.
- [7] Office for Nuclear Regulation, “ONR Technical Inspection Guide ONR-INSP-GD-064 Revision 5 (General Inspection Guide),” 2020. [Online]. Available: https://www.onr.org.uk/operational/tech_insp_guides/onr-insp-gd-064.pdf.

9. Glossary and Abbreviations

CDM 2015	Construction (Design and Management) Regulations 2015
RSP	relevant statutory provision
HSWA	Health and Safety at Work etc. Act 1974
GB nuclear site	as defined in Section 68 of the Energy Act 2013: <i>a nuclear site in England, Wales or Scotland</i>
Authorised defence site	as defined in Regulation 2 of the Health and safety (Enforcing Authority) Regulations 1998: <i>a site in England and Wales or Scotland —</i> <i>(a) that is used for any purpose which, if section 1 of the Nuclear Installations Act 1965 applied to the Crown, would require the authority of a nuclear site licence in respect of that site; and</i> <i>(b) for which there is in force an authorisation granted by or on behalf of the Secretary of State having responsibility for defence authorising it to be used for that purpose;</i>
New nuclear build site	as defined in Regulation 2A of the Health and safety (Enforcing Authority) Regulations 1998: <i>a site which, subject to paragraphs (3) and (4) —</i> <i>(a) is immediately adjacent to a GB nuclear site (“the associated site”);</i> <i>(b) is, or forms part of, a construction site where construction work is being carried out —</i> <i>(i) wholly or mainly for the purpose of the installation of one or more nuclear installations on the associated site; and</i> <i>(ii) by or on behalf of the person to whom the nuclear site licence for the associated site has been granted.</i> <i>(3) A site is not a new nuclear build site if, on the date construction work starts on that site, there is a nuclear installation installed on the associated site.</i>



(4) A site ceases to be a new nuclear build site on the completion of the construction work mentioned in paragraph (1)(b).

Licensee	for the purpose of this document, licensees also include 'operators' and those organisations in control of a ONR regulated site, organisations operating on an authorised defence site, as well as organisations undergoing the GDA process that is known as the requestion parties.
Design	as defined in Regulation 2 of CDM 2015: <i>includes drawings, design details, specifications and bills of quantities (including specification of articles or substances) relating to a structure, and calculations prepared for the purpose of a design</i>
Structure	<p>as defined in Regulation 2 of CDM 2015: <i>(a) any building, timber, masonry, metal or reinforced concrete structure, railway line or siding, tramway line, dock, harbour, inland navigation, tunnel, shaft, bridge, viaduct, waterworks, reservoir, pipe or pipeline, cable, aqueduct, sewer, sewage works, gasholder, road, airfield, sea defence works, river works, drainage works, earthworks, lagoon, dam, wall, caisson, mast, tower, pylon, underground tank, earth retaining structure or structure designed to preserve or alter any natural feature and fixed plant;</i></p> <p><i>(b) any structure similar to anything specified in paragraph (a);</i></p> <p><i>(c) any formwork, falsework, scaffold or other structure designed or used to provide support or means of access during construction work,</i></p> <p><i>and any reference to a structure includes part of a structure;</i></p>
GDA	Generic Design Assessment, a process used by the nuclear regulators (ONR and the environment agencies) to assess the new nuclear power station designs following a request from the government. It allows the regulators to assess the safety, security, and environmental implications of new reactor designs, separately from applications to build them at specific sites. Further information on GDA can be found on ONR's website: https://www.onr.org.uk/new-reactors/background.htm .

Intelligent customer	as defined in ONR Safety Assessment Principle (SAPs) [6]: <i>the capability of an organisation to understand where and when work is needed; specify what needs to be done; understand and set suitable standards; supervise and control the work; and review, evaluate and accept the work carried out on its behalf.</i>
Client	as defined in Regulation 2 of CDM 2015: <i>any person for whom a project is carried out</i>
PD	principal designer, as defined in Regulation 2 of CDM 2015: <i>the designer appointed under Regulation 5(1)(a) to perform the specified duties in Regulations 11 and 12</i>
PC	principal contractor, as defined in Regulation 2 of CDM 2015: <i>the contractor appointed under Regulation 5(1)(b) to perform the specified duties in Regulations 12 to 14</i>
Project team	a team with clear roles and responsibilities assigned to plan and execute a construction project. Members would include, for example, but not limited to, PD, PC, representatives of the client, designers, and contractors.
Construction work activity	as defined in Regulation 2 of CDM 2015: <i>the carrying out of any building, civil engineering or engineering construction work and includes:</i> <i>(a) the construction, alteration, conversion, fitting out, commissioning, renovation, repair, upkeep, redecoration or other maintenance (including cleaning which involves the use of water or an abrasive at high pressure, or the use of corrosive or toxic substances), de-commissioning, demolition or dismantling of a structure;</i> <i>(b) the preparation for an intended structure, including site clearance, exploration, investigation (but not site survey) and excavation (but not pre-construction archaeological investigations), and the clearance or preparation of the site or structure for use or occupation at its conclusion;</i> <i>(c) the assembly on site of prefabricated elements to form a structure or the disassembly on site of the prefabricated elements which, immediately before such disassembly, formed a structure;</i>

(d) the removal of a structure, or of any product or waste resulting from demolition or dismantling of a structure, or from disassembly of prefabricated elements which immediately before such disassembly formed such a structure;

(e) the installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunications, computer or similar services which are normally fixed within or to a structure,

but does not include the exploration for, or extraction of, mineral resources, or preparatory activities carried out at a place where such exploration or extraction is carried out

Construction project	as defined in Regulation 2 of CDM 2015: <i>a project which includes or is intended to include construction work and includes all planning, design, management or other work involved in a project until the end of the construction phase</i>
Construction site	as defined in Regulation 2 of CDM 2015: <i>includes any place where construction work is being carried out or to which the workers have access, but does not include a workplace within the site which is set aside for purposes other than construction work</i>
Other requirements	includes industrial guidance, codes of practices, company standards, contractual arrangements, insurance arrangements
NIHSS	Nuclear Internal Hazards and Site Safety, a specialism in ONR

10. Capability Map

- 10.1. Capability maps were cited as an area of good practice during the 2019 IAEA Integrated Regulatory Review Service (IRRS) mission to the UK and ONR is committed to encouraging their use on ONR regulated sites.
- 10.2. Capability maps are tools that inspectors and operators can use to record assurance of preparedness and capability when judging a licensee's ability in managing construction work activities that falls under the scope of CDM 2015.
- 10.3. This guide, together with the descriptors in the CDM 2015 capability map (see Appendix A), are aimed to consolidate and provide examples of the criteria that relevant good practice (RGP) for the CDM 2015 arrangements should deliver on ONR regulated sites.
- 10.4. The structure of the capability map allows capabilities to be compared across licensees (for example, across a fleet) to identify trends and gaps. The capability map can also be used by inspectors and licensees to identify strengths and weaknesses in their arrangements for continual improvement. It is important to note that the capability map is not a checklist that guarantees compliance with CDM 2015.
- 10.5. It is usual for inspectors to request that licensees update the map or sections of the capability map and return the completed or updated capability map to ONR at agreed intervals. It is not intended that routine compliance inspections of the entirety of the capability map are undertaken at any one time, rather that inspections target a subset of the descriptors in the capability map. Licensees may also wish to send relevant supporting information as evidence to support the claims made in their return.
- 10.6. Following receipt of the information from a licensee, inspectors should confirm the licensee's claims and evidence to targeted questions prior to or during routine compliance inspections. Inspectors may wish to take a sampling approach targeting the areas where, for example, more evidence is needed to support claims.
- 10.7. Site and project inspectors should liaise with specialist inspectors within Nuclear Internal Hazards and Site Safety (NIHSS) to assess the information against CDM 2015 requirements. Following any intervention (by inspection, assessment, correspondence) inspectors, together with licensees, can then review, and where necessary, revise the relevant sections in the capability map.
- 10.8. Following each intervention, a new revision of the capability map should be made to identify the key changes in a licensee's arrangements including:

- relevant conclusions of targeted interventions, progress that addresses previous areas for improvements identified by ONR inspectors, and the implementation of continuous improvements as a consequence of reviews of its arrangements and tests.
- 10.9. The ONR inspector will then determine a red, amber, or green (RAG) rating for each section of the capability map which will assist in highlighting the areas that might need further attention. RAG ratings will be assigned in accordance with the inspection rating contained within ONR-INSP-GD-064 (General Inspection Guide) [7]. Any significant issues identified should be raised and logged in the ONR issues database in addition to being recorded on the capability map.
- 10.10. The frequency of revision of each section of the capability map should be determined according to the site risk profile, history of compliance and any other relevant factors, as determined by the nominated site inspector or project inspector. Similarly, not all sections of the maps will be relevant to all sites.
- 10.11. ONR Regulatory Intelligence/Technical Division will collate and analyse the information across all sites to identify trends and provide feedback on the strengths and weaknesses identified.

Appendix A – CDM 2015 Capability Map³

Site/Operator:	Assessment Date:	Assessment Ref.:
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Ref.	Ability	Supporting Guidance
Outcome 1:		<i>Appointment of the right people and organisation at the right time and ensure duties are adequately discharged. The licensee can:</i>
1.1	<p>SHOW the organisation can provide the resources and commitment necessary to develop, maintain and implement adequate arrangements to manage risks to health and safety associated with construction activities throughout the life cycle of a construction project(s).</p> <p>[CDM 2015 Regulation 4 and Schedule 2]</p>	<p>As the client, the licensee has duties to make suitable arrangements for managing a construction project, including the allocation of sufficient time and other resources, provision of welfare facilities, and ensure these arrangements are maintained and reviewed throughout the project [CDM 2015 Regulation 4(1) to 4(3) and Schedule 2]. There should be a role with a clear and unambiguous mandate to act on behalf of the licensee as the 'client' for CDM 2015 purposes. This role should be at an appropriate level within the organisation, with appropriate authority, to allocate resources as required, including people, financial provision and time. The client should have clear understanding that they are accountable for the impact their decisions and approach have on health, safety, and welfare on a construction project(s) [CDM 2015 Guidance L153 para 29].</p> <p>The licensee should be able to show that competent people within the organisation have been appointed to develop, maintain and implement the adequate CDM 2015 arrangements. The licensee should be able to justify the competence of the appointees based on their skills, knowledge, experience, and attributes.</p> <p>The licensee should ensure all key roles understand both nuclear safety and conventional health and safety matters associated with a construction project(s). Where competence gaps are identified, the licensee should identify adequate training arrangements to address the gaps [CDM 2015 Guidance L153 para 163 to 168].</p> <p>There should be continuity plans for key CDM 2015 key roles within the licensee's organisation, for example but not limited to: those who are acting on the licensee's behalf as the intelligent customer, construction manager, site manager, site engineer in charge of construction projects and/or design. Licensee should consider include these roles as nuclear baseline roles.</p> <p>The licensee should recognise that expertise may exist within contractor partners and work collaboratively with them to fulfil the duties outlined in CDM 2015.</p>

³ This word version of the template has been published with the TIG to control the content of the descriptors (the ability and the supporting guidance). Inspectors and operators should complete the corresponding excel spreadsheet template (CM9 reference 2021/60904) with the supporting claims and evidence.

Ref.	Ability	Supporting Guidance
1.2	<p>SHOW considerations are given to the appointment of principal designer (PD) and principal contractor (PC) roles.</p> <p>[CDM 2015 Regulations 5, 8 and 10]</p>	<p>The licensee should be able to show where there is more than one contractor, or if it is reasonably foreseeable that more than one contractor will be working on a project at any time, the appointment made in writing for the principal designer (PD) and/or principal contractor (PC) role(s) [CDM 2015 regulation 5(1)]. The appointments must be made as soon as is practicable, and in any event, before the construction phase begins [CDM 2015 Regulation 5(2)].</p> <p>The licensee should be able to show the due diligence checks have been performed on the designers (including PD) and/or contractors (including PC) role(s) prior to the appointment, taking into account their skills, knowledge, experience, including organisational capabilities [CDM 2015 Regulation 8(1) and 8(3)]. The extent of the checks performed by the licensee should reflect the complexity of the project and the range and nature of the risks involved [CDM 2015 Guidance L153 para 36].</p> <p>The licensee should be able to show how it recognises and addresses issues such as competence of sub-contractors, application of designer duties for designs that are prepared or modified outside of GB [CDM 2015 regulation 10(1)], and other supply chain issues relevant to the CDM 2015 arrangements.</p>

Ref.	Ability	Supporting Guidance
1.3	<p>SHOW the duties of client, principal designer, designer, principal contractor, and contractor roles as defined in CDM 2015 have been appropriately discharged.</p> <p>[CDM 2015 Regulations 4, 8, 9, 14, and 15]</p>	<p>The licensee should be able to identify situations, where applicable, where there is more than one client in relation to a project and appoint the appropriate representative as the client for CDM 2015 purposes so that the client duties could be discharged adequately [CDM 2015 Regulation 4(8)].</p> <p>The licensee should be able to show how the client duties have been discharged, including the preparation and timely provision of pre-construction information [CDM 2015 Regulation 4(4)].</p> <p>The licensee should be able to show how, as the client, it will take reasonable steps to ensure that the PD and PC comply with their separate duties [CDM 2015 Regulation 4(6)]. Including the preparation of key documentations such as the construction phase plan and health and safety file [CDM 2015 Regulation 4(5)].</p> <p>In the case that the licensee appoints itself to undertake the PD and/or PC role(s) or fails to appoint the PD and/or PC role, the licensee should be able to show how it ensures the relevant duties associated with PD and/or PC roles under CDM 2015 are fulfilled [CDM 2015 Regulation 5(3) and 5(4)].</p> <p>The licensee should be able to show how the roles of ‘designer’ and ‘contractor’ are identified and the duties are effectively discharged [CDM 2015 Guidance L153 para 72 to 74, 77 to 92 for ‘designer’ role, and para 147 to 148, 150 to 178 for ‘contractor’ role].</p> <p>As an intelligent customer, the licensee should be cognisant of the requirements for contractors, including PC, to ensure the competence and provision of training for any workers and/or sub-contractors appointed or employed by those contractors [CDM 2015 Guidance L153 para 162 to 168]. If the licensee appoints itself to take on the PC and/or contractor role, it must be able to demonstrate it has taken these requirements into consideration when appointing workers and/or sub-contractors.</p> <p>The licensee should be able to show that it has set and communicated clear expectations to the project team on how to deliver the construction project in a way that secures health and safety throughout the lifecycle.</p> <p>The licensee should be able to show that effective mechanisms are in place between the key roles to communicate and cooperate with each other and coordinate their work activities [CDM 2015 Guidance L153 para 30 to 33].</p>

Ref.	Ability	Supporting Guidance
Outcome 2:		<i>Adequate management of risks by applying the general principles of prevention. The licensee can:</i>
2.1	<p>DEMONSTRATE using the general principles of prevention as a framework to identify and implement measures to manage risks arisen from a construction project(s). [CDM 2015 Regulations 9(2), 11(2), 13(2), and Management of Health and Safety Regulations 1999 Regulation 4 and Schedule 1]</p>	<p>The general principles of prevention are:</p> <ul style="list-style-type: none"> a) avoiding risks; b) evaluating the risks which cannot be avoided; c) combating the risks at source; d) adapting the work to the individual, especially as regards the design of workplaces, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health; e) adapting to technical progress; f) replacing the dangerous by the non-dangerous or the less dangerous; g) developing a coherent overall prevention policy which covers technology, organisation of work, working conditions, social relationships and the influence of factors relating to the working environment; h) giving collective protective measures priority over individual protective measures; and i) giving appropriate instructions to employees. <p>The licensee should be able to show how health, safety and welfare risks associated with the project are considered, evaluated, and addressed appropriately throughout the lifecycle of the project, in other words, from concept to completion.</p> <p>The licensee should be able to show, during the design and/or modification process of a concept, the steps the designer has taken to consider and eliminate, so far as is reasonably practicable, the foreseeable risks to the health or safety of a person(s) who are carrying out or liable to be affected by the construction work, maintaining or cleaning the structure, and/or its users [CDM 2015 Regulation 9(2)]. Where it is not possible to eliminate the risks, the licensee should be able to show how reasonable steps have been taken to reduce the risks or control them through the design process and the information of the remaining risks have been provided to others through the health and safety file [CDM 2015 Regulation 9(3)].</p> <p>The licensee should be able to show how the principles of prevention are applied by the contractors, including PC, to the site controls through the risk assessment and method statement (RAMS) process [CDM 2015 Regulation 13(2)].</p>

Ref.	Ability	Supporting Guidance
Outcome 3:		Adequate management and provision of key information and/or instructions. The licensee can:
3.1	<p>IDENTIFY notifiable project and GIVE appropriate notification as soon as possible before the construction phase begins.</p> <p>[CDM 2015 Regulation 6 and Schedule 1]</p>	<p>The licensee should be able to show that they have given written notification (F10) on any notifiable projects on their site to ONR prior to begin the construction phase [CDM 2015 Regulation 6(1), (2) and (5)].</p> <p>The licensee should be able to show that an up-to-date notice is clearly displayed in the construction site office in a form that contains all necessary information as outlined in Schedule 1 in CDM 2015, where it can be read and easily understood by any worker engaged in the construction work [CDM 2015 Regulation 6(3)].</p>
3.2	<p>PREPARE and PROVIDE up-to-date Pre-Construction Information in a timely manner.</p> <p>[CDM 2015 Regulation 4(4) and CDM 2015 Guidance L153 Appendix 2]</p>	<p>The licensee should be able to show that the client has provided the up-to-date pre-construction information to every designer and contractor (including PD and PC) appointed, or is considered to be appointed for the project, in a timely manner [CDM 2015 Regulation 4(4)].</p> <p>The licensee should be able to show that the pre-construction information prepared and provided to the designers and contractors is up-to-date, relevant to the particular project, has an appropriate level of detail, and is proportionate to the risks involved [CDM 2015 Guidance L153 Appendix 2].</p> <p>The licensee should be able to show how the pre-construction information has been taken into account when the designer is preparing or modifying designs, and how this information was provided to the client by the designers, where applicable [CDM 2015 Guidance L153 Appendix 2].</p> <p>The licensee should be able to show the agreement between the principal designer and the client on the level of support the client needs to ensure the pre-construction information is provided to each designer and contractor in a timely manner, and the information is made available when others needed it [CDM 2015 Guidance L153 Appendix 2].</p>
3.3	<p>SHOW oversight to the development of up-to-date Construction Phase Plan by the Principal Contractor.</p> <p>[CDM 2015 Regulation 4(5)(a) and CDM 2015 Guidance L153 Appendix 3]</p>	<p>The licensee should be able to show that, as a client, how it discharges its duty to ensure adequate construction phase plan is developed by the principal contractor before the construction phase begins [CDM 2015 Regulation 4(5)(a)]. The plan should outline the health and safety arrangements for the construction phase, site rules, and specific measures concerning any work involving the particular risks listed in Schedule 3 of CDM 2015 [CDM 2015 Guidance L153 Appendix 3].</p> <p>The licensee should be able to show that the principal contractor has been provided with all the available relevant information it needs to develop the construction phase plan, for example the pre-construction information [CDM 2015 Guidance L153 Appendix 3].</p> <p>The licensee should be able to show, as a client, how it ensures the plan is regularly reviewed and revised by the principal contractor to take account of any changes that occur as construction progresses, so that the plan continues to be fit for purpose [CDM 2015 Guidance L153 Appendix 3].</p>

Ref.	Ability	Supporting Guidance
3.4	<p>SHOW oversight to the development and handling of the up-to-date Health and Safety File for projects involving more than one contractor.</p> <p>[CDM 2015 Regulation 4(5)(b) and CDM 2015 Guidance L153 Appendix 4]</p>	<p>For projects involving more than one contractor, the licensee should be able to show that, as a client, how it has discharged its duty to ensure the health and safety file is developed and kept up to date by the principal designer, and the file is made available for anyone who needs it to comply with relevant legal requirements [CDM 2015 Regulation 4(5)(b)]. The level of detail of the health and safety file should be proportionate to the risks and the information contained within the file should be relevant, clear, concise, and easily understandable [CDM 2015 Guidance L153 Appendix 4].</p> <p>In the case that the appointment for the PD finishes before the end of the project, the licensee should be able to show that the health and safety file has been passed to the principal contractor, who will become responsible for the file. Once the project is finished, the licensee should be able to show that the up-to-date health and safety file is passed back to the client for retention and the file is made available to anyone who needs it to comply with relevant legal requirements [CDM 2015 Regulation 12(5)].</p>
3.5	<p>SHOW mechanisms are in place to ensure the timely provision of adequate information and/or instructions that are relevant to ensuring the health, safety and welfare of persons involved and/or affected by the construction project(s).</p> <p>[CDM 2015 Regulation 8(6)]</p>	<p>The licensee should be able to show that it has mechanisms in place to ensure anyone with a duty under CDM 2015 to provide the relevant health, safety, and welfare information and/or instructions to anyone else provide it in such a way that it is easy to understand and in good time, so that the recipients have sufficient time to understand and take account of it in effectively discharging their duties [CDM 2015 Regulation 8(6), CDM 2015 Guidance L163 para 69 to 71 and 173].</p> <p>The licensee should be able to show how it ensures the duty to provide the following information have been effectively discharged by a contractor, including a PC:</p> <ul style="list-style-type: none"> a) a suitable site induction, where not already provided by the principal contractor; b) the procedures to be followed in the event of serious and imminent danger to health and safety; c) information on risks to health and safety— <ul style="list-style-type: none"> (i) identified by the risk assessment under regulation 3 of the Management of Health and Safety at Work Regulations 1999, or (ii) arising out of the conduct of another contractor’s undertaking and of which the contractor in control of the worker ought reasonably to be aware; and d) any other information necessary to enable the worker to comply with the relevant statutory provisions. <p>[CDM 2015 Regulation 15(9)].</p>

Ref.	Ability	Supporting Guidance
Outcome 4:		<i>Adequate identification and adequate management of interface and potential conflicts with other legislation, relevant good practice, and additional requirements. The licensee can:</i>
4.1	<p>SHOW that it recognises and understand different legislations and requirements will apply at the same time, and the duties placed upon the dutyholders to comply with all applicable legislations where relevant are of equivalent status.</p>	<p>The licensee should be able to show that the applicable legislations and other requirements relevant to the construction project that could have an impact on the health, safety and welfare of persons working on the project and those who are affected by the project are identified. This could include, but not limited to, nuclear safety, site safety (also known as conventional health and safety or industrial safety), security, safeguards, and transport.</p> <p>Below is a non-exhaustive list of legislations and requirements that could apply at the same time as CDM 2015:</p> <ul style="list-style-type: none"> • The Health and Safety at Work etc Act 1974 • Management of Health and Safety at Work Regulations 1999 • Lifting Operations and Lifting Equipment Regulations 1998 • Provision and Use of Work Equipment Regulations 1998 • Regulatory Reform (Fire Safety) Order 2005 • The Fire (Scotland) Act 2005 • Control of Asbestos Regulations 2012 • Work at Height Regulations 2005 • Confined Space Regulations 1997 • Electricity at Work Regulations 1989 • Dangerous Substances and Explosive Atmospheres Regulations 2002 • Control of Substances Hazardous to Health Regulations 2002 • Control of Major Accident Hazards Regulations 2015 • License Conditions (LCs) – see Appendix B of NS-INSP-GD-074 for a mapping of CDM 2015 and LCs • Nuclear Industries Security Regulations (NISR) 2003. <p>The licensee should be able to show that overlaps between different legislations and other requirements are understood, and the duties are appropriately discharged.</p> <p>The licensee should be able to show the risks associated with a construction project(s) are managed holistically in accordance with the applicable legislations and other requirements.</p> <p>The licensee should be able to show that it has mechanisms in place to proactively identify, manage and resolve potential conflicts between different requirements and duties.</p>

Ref.	Ability	Supporting Guidance
Outcome 5:		Adequate management of key stakeholders. The licensee can:
5.1	<p>DEMONSTRATE mechanisms are in place to promote effective cooperation, including communication, between all dutyholders, and that the construction project work is carried out in a coordinated manner.</p> <p>[CDM 2015 Regulation 8(4), CDM 2015 Guidance L153 para 66].</p>	<p>The licensee should be able to show that the impact of the key stakeholders' decisions and actions, which could affect the construction project and the associated health, safety, and welfare for all persons involved in the project, are considered as part of the planning process.</p> <p>Key stakeholders can be both internal and external to the licensee's organisation. Examples of external key stakeholders include, but not limited to, funding providers including private or government bodies, contractors, designers, regulators. Examples of internal key stakeholders include but not limited to, site manager, building/structure manager, site director, corporate functions, workers and their representatives.</p> <p>The licensee should be able to show how it promotes effective cooperating, communicating and coordination of work between all dutyholders to ensure health and safety of all persons involved in the project, and that the risks and the measures to control those risks are understood by everyone. [CDM 2015 Guidance L153, para 11 and 31(d)].</p> <p>In the case that the licensee appoints itself to undertake the PD role, it must recognise the PD has a specific duty to ensure all persons working in relation to the pre-construction phase cooperate with each other as well as the client and the PD. [CDM 2015 Regulation 11(1) and 11(5), CDM 2015 Guidance L153 para 104]. This involves establishing effective communication mechanisms and sharing of relevant information. The licensee should be able to demonstrate how this duty has been effectively discharged.</p> <p>In the case that the licensee appoints itself to undertake the PC role, it must recognise the PC has a specific duty to ensure that contractors under their control cooperate with each other so the risks to themselves and others are managed effectively. [CDM 2015 Regulation 13(1) and 14(a), CDM 2015 Guidance L153 para 117, 130 to 132]. As the PC, licensee must recognise it has additional duty to consult and engage with workers. [CDM 2015 Regulation 14(b), CDM 2015 Guidance L153 para 141, 143 to 146]. The licensee should be able to demonstrate how these duties have been effectively discharged.</p> <p>Examples of mechanisms to promote cooperation, communication and coordination include, but not limited to, engagement meetings ranging from strategic level to operational level, departmental weekly and monthly stand-up meetings, plan of the day meetings, setting to work, pre- and post-job debriefs, deconfliction meetings, workshops, toolbox talks.</p>

Ref.	Ability	Supporting Guidance
Outcome 6:		<i>Adequate management of a construction site and its associated construction work activities so that work is carried out, so far as is reasonably practicable, without risk to health, safety and welfare of the persons working or affected by the construction project and construction work activities. The licensee can:</i>
6.1	<p>DEMONSTRATE mechanisms are in place to ensure the work on a construction site is carried out, so far as is reasonably practicable, without risk to health, safety and welfare of the persons working or affected by the construction project and associated construction work activities.</p> <p>[CDM 2015 Part 4, Regulations 16 to 35, and Schedules 2 and 3].</p>	<p>The licensee should be able to show how, as an intelligent customer, it ensures the PC plans, manages, and monitors a construction site and its associated construction work activities adequately during the construction phase to ensure work is carried out so far as is reasonably practicable, without risk to health, safety and welfare of the persons working or affected by the construction project and construction work activities.</p> <p>The licensee should be able to show how, as an intelligent customer, it ensures the contractors, including PC, have taken reasonable steps to prevent unauthorised access to the site [CDM 2015 Regulation 15(10), CDM 2015 Guidance L153 para 174 to 175]. If the licensee appoints itself to take on the PC and/or contractor role, it must recognise and demonstrate how it discharged the additional duty to take reasonable steps to prevent unauthorised access to the site.</p> <p>The licensee should be able to show how, as an intelligent customer, it ensures contractors, including PC, comply with the CDM 2015 Part 4 general requirements for all construction sites.</p> <p>If the licensee appoints itself to undertake the PC and/or contractor role, it must recognise and effectively discharge the additional duties to plan, manage, and monitor the construction site, including prevention of unauthorised access to site, during the construction phase, including compliance with CDM 2015 Part 4 requirements.</p>
6.2	<p>DEMONSTRATE appropriate level of supervision is provided on a construction site. [CDM 2015 Regulation 15(8)]</p>	<p>The licensee should be able to demonstrate how, as an intelligent customer, it ensures appropriate level of supervision is provided by all dutyholders on a construction site during the construction phase.</p> <p>If the licensee appoints itself to undertake the PC and/or contractor role, it must recognise the additional duties to provide appropriate level of supervision to each worker under their control, so that construction can be carried out, so far as is reasonably practicable, without risks to health and safety. The licensee should be able to demonstrate how these duties have been effectively discharged [CDM 2015 Regulation 15(8), CDM 2015 Guidance L153 para 169 to 172].</p>

Ref.	Ability	Supporting Guidance
Outcome 7:		<i>Adequate management of change associated with CDM 2015 arrangements and a construction project(s). The licensee can:</i>
7.1	SHOW how material changes that may affect CDM 2015 arrangements and the health, safety, and welfare of those who are working or affected by a construction project are appropriately identified, understood, and responded to.	<p>The licensee should be able to demonstrate how it adequately recognises and manages material changes that may affect the CDM 2015 arrangements, and the health, safety and welfare of persons working on or affected by a construction project and its associated construction work activities.</p> <p>Examples of such changes include, but not limited to: organisation structure, project structure, funding, strategy, applicable legislation and/or other requirements, key personnel, competence, design, site layout including work environment, new risks introduced, new technology or equipment, system of work including site rules.</p> <p>The licensee must ensure the changes are reflected in the relevant key documentation, such as the notification, health and safety file, and construction phase plan so that they continue to be fit-for-purpose [CDM 2015 Regulations 6(3)(c), 12(6), and (9)].</p>

Appendix B – CDM 2015/LC/TIG/TAG Mapping⁴

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 1 Commencement, interpretation and application	Regulation 2 Interpretation	Sets out the terms and definitions used in the regulations.	LC 1 has some relevance.	No TIGs appear to directly capture these provisions.	Partially covered in: NS-TAST-GD-079 NS-TAST-GD-049 NS-TAST-GD-017
	Regulation 3 Application in and outside GB	Defines the scope of CDM 2015, which applies to all construction sites in GB.	LC 19 to LC 22, LC 30, and LC 35 have direct relevance but focus on nuclear safety specifically.	No TIGs appear to directly capture these provisions.	Partially covered in: NS-TAST-GD-017 .
PART 2 Client duties	Regulation 4 Client duties in relation to managing projects	(1) (2) (3) client to make, maintain and review suitable arrangements in managing a project, including allocation of sufficient time and resources.	LC 14, LC 15, LC 19 to LC 22, LC 35, and LC 36 have direct relevance but focus on nuclear safety specifically.	Partially covered by requirements for safety case set out in LC 19 TIG , and 'Quality Plan' or similar set out in LC 20 to LC 22 TIGs .	Partially covered in: NS-TAST-GD-049 NS-TAST-GD-079 NS-TAST-GD-077
		(4) client to provide pre-construction information to every designer and constructor.	None appear to be directly relevant	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(5) client to ensure a construction phase plan is drawn up by the PC; and a health and safety file is prepared by the PD.	None appear to be directly relevant	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(6) client to take reasonable steps to ensure PC and PD fulfil their legal duties as set out in Regulations 11 to 14.	LC 14, LC 23, and LC 24 have some relevance, but safety cases cover nuclear safety only, as specified in SAP.	Partially covered by 'Quality Plan' or similar included in LC 20 to 22 TIGs .	Partially covered in: NS-TAST-GD-026 NS-TAST-GD-079 NS-TAST-GD-049 NS-TAST-GD-077

⁴ This mapping does not take into account the CDM 2015 TIG. Colour code: red = provisions were not captured; amber = provisions were partially captured. Full version of the mapping is available on CM9 reference 2021/75502.

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 2 Client duties	Regulation 4 Client duties in relation to managing projects	(7) client to ensure the health and safety file is passed onto the person of interest, in the case of the client 'disposes of their interest in the structure'.	LC 3 has some relevance.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(8) sets out requirement for agreement to be established, in the case of multiple clients exist.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
PART 2 Client duties	Regulation 5 Appointment of the PD and the PC	(1) (2) client must appoint as soon as practicable PD and PC in writing in the case of multiple designers and contractors are involved.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(3) (4) client must fulfil PD and PC duties if none appointed.	LC 36 has some relevance.		
	Regulation 6 Notification	Projects must be notified to ONR via F10 forms, and send it through in the required time frame, including the details to be notified in Schedule 1.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 3 Health and safety duties and roles	Regulation 8 General duties	(1) designer/contractor must be SQEP, and organisation be capable. (3) Client is required to check KSE and capability of designer/contractor.	LC 10, LC 12, and LC 36 have some relevance.	Partially covered in LC 26 TIG .	Partially covered in: NS-TAST-GD-057 NS-TAST-GD-079 NS-TAST-GD-017 NS-TAST-GD-049 NS-TAST-GD-077
		(2) designer or contractor must not accept an appointment to a project unless they are SQEP and capable.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(4) cooperation is required between all parties, including on the same site or adjoining sites.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(5) requires reporting of health and safety concerns to the person in control of a project.	LC 23(3) has some relevance.	Partially covered in LC 23 TIG .	Briefly covered in NS-TAST-GD-077 , but the scope included in the TAG is far-reaching.
		(6) provide comprehensible information and instruction.	LC 9 has some relevance	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 3 Health and safety duties and roles	Regulation 9 Duties of designers	(1) designer can't commence work until satisfied client aware of duties.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(2) (3) (4) require a designer to take a proactive approach to 'design the risk out', when they are preparing or modifying a design. Designer is also required to assist client and contractors to understand the design so they can better comply with their duties.	LC 16 has some relevance.	No TIGs appear to directly capture these provisions.	Partially covered by Design Safety Assurance TAG (NS-TAST-GD-057) but are limited to nuclear safety considerations. Briefly covered by Civil Engineering TAG (NS-TAST-GD-017).
	Regulation 10 Designs prepared or modified outside GB	Client or persons commissioned the design to ensure Regulation 9 is complied with if the design is prepared or modified outside of GB.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
	Regulation 11 Duties of a PD in relation to health and safety at the pre-construction phase	(1) (2) (3) PD must plan, manage and monitor the pre-construction phase and coordinate health and safety matters by applying risk assessment and hierarchy of control.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(4) PD to ensure designers comply with Regulation 9. (5) PD to ensure cooperation. (7) PD to liaise with PC and share information provisions.			
		(6) PD to assist client in provision of pre-construction information to designers and contractors.			

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 3 Health and safety duties and roles	Regulation 12 Construction phase plan and health and safety file	Set out detailed information to include in construction phase plan, and health and safety file provisions, particularly work specified in CDM 2015 Schedule 3.	LC 14 has some relevance.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
	Regulation 13 Duties of a PC in relation to health and safety at the construction phase	(1) PC must ensure a construction phase plan is in place before setting up a site.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(2) Construction plan must cover a certain set of arrangements, including specific measures set out in Schedule 3.			
		(3) The PC must organise cooperation between contractors.	LC 9 has some relevance.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(4) The PC must ensure that a suitable site induction is provided.			
	(5) The PC must liaise with the PD for the duration of the PD's appointment.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.	
Regulation 14 PC's duties to consult and engage with workers	The PC must involve the workforce in matters of health, safety and welfare.	None appear to be directly relevant.			No TIGs appear to directly capture these provisions.

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 3 Health and safety duties and roles	Regulation 15 Duties of contractors	(1) contractors must not carry out work until they are satisfied that the client is aware of duties.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(2) contractor must plan, manage, monitor construction work			
		(3) contractor must comply with directions given by PC or PD and relevant part of the construction phase plan			
		(4) (5) If there is only one contractor working on a project, the contractor must ensure a construction phase plan is in place before setting up a site and apply hierarchy of control in determine the duration and various stages of work on the site.			
		(6) Construction Phase Plan must fulfil the requirements of Regulation 12(2).	LC 14 has some relevance but is limited to nuclear safety cases only.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
		(7) KSE requirements for contractors working on a site.	LC 12 and LC 26 have some relevance.	Partially covered by LC 26 TIG (NS-INSP-TIG-026) .	
		(8) (9) contractor must provide appropriate supervision, instruction and information so the construction work can be carried out safely.	LC 9, LC 24, and LC 26 have some relevance.	No TIGs appear to directly capture these provisions.	

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 3 Health and safety duties and roles	Regulation 15 Duties of contractors	(10) A contractor must not begin work on a construction site unless reasonable steps have been taken to prevent access by unauthorised persons to that site.	None appear to be directly relevant.		
		(11) A contractor must ensure, so far as is reasonably practicable, that the requirements of Schedule 2 are complied with so far as they affect the contractor or any worker under that contractor's control.			
PART 4 General requirements for all construction sites	Regulation 16 Application of Part 4	(1) part 4 only applies to a construction site. (2) sets out an absolute duty for a contractor to comply with requirements of part 4 so far as matters are within their control.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	Partially covered in Workplaces and work environment TAG (NS-TAST-GD-062).
	Regulation 17 Safe places of construction work	These are specific requirements for a construction site to have in place. Each regulation has a specific topic heading.	LC 8, LC 9, LC 11, LC 23, LC 24 and LC 26 have some relevance; however, they are mainly focused on nuclear safety.	No TIGs appear to directly capture Regulations 17 to 28 requirements.	Regulation 17 is partially covered by Workplaces and work environment TAG (NS-TAST-GD-062).
	Regulation 18 Good order and site security				No TAGs appear to directly capture Regulations 18 to 28 requirements.
	Regulation 19 Stability of structures				
	Regulation 20 Demolition or dismantling				
	Regulation 21 Explosives				
	Regulation 22 Excavations				

CDM 2015 Requirements		Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)			
PART 4 General requirements for all construction sites	Regulation 23 Cofferdams and caissons						
	Regulation 24 Reports of inspections						
	Regulation 25 Energy distribution installations	These are specific requirements for a construction site to have in place. Each regulation has a specific topic heading.	LC 8, LC 9, LC 11, LC 23, LC 24 and LC 26 have some relevance; however, they are mainly focused on nuclear safety.	No TIGs appear to directly capture Regulations 17 to 28 requirements.	No TAGs appear to directly capture Regulations 18 to 28 requirements.		
	Regulation 26 Prevention of drowning						
	Regulation 27 Traffic routes						
	Regulation 28 Vehicles						
	Regulation 29 Prevention of risk from fire, flooding or asphyxiation					Regulations 29 to 32 requirements are partially covered by LC 11 TIG (NS-INSP-GD-011) and The Regulation of life fire safety TIG (NS-INSP-GD-073), but not to the extent required by CDM 2015.	No TAGs appear to directly capture Regulations 29 to 32 requirements.
	Regulation 30 Emergency procedures						
	Regulation 31 Emergency routes and exits						
	Regulation 32 Fire detection and firefighting						
	Regulation 33 Fresh air			No TIGs appear to directly capture Regulations 33 to 35 requirements.	Regulations 33 to 35 requirements are partially covered by Workplaces and work environment TAG (NS-TAST-GD-062).		
	Regulation 34 Temperature and weather protection						
Regulation 35 Lighting							

CDM 2015 Requirements			Applicable Licence Conditions (LCs)	Technical Inspection Guidance (TIG)	Technical Assessment Guidance (TAG)
PART 5 General	Regulation 36 Enforcement in respect of fire	Sets out who is the enforcing authority for the fire safety on construction sites for England and Wales, and Scotland.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
SCHEDULE 1 Particulars to be notified under regulation 6	Regulation 6 Notification	Sets out detailed information to be included for Notifying the relevant regulatory body per requirement of Regulation 6.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.
SCHEDULE 2 Minimum welfare facilities required for construction sites	Regulation 4 (2)(b), Regulation 13 (4)(c), and Regulation 15 (11)	Sets out minimum welfare facilities for construction sites, including sanitary convenience, washing facilities, drinking water, changing rooms and lockers and facilities for rest.	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	Partially covered in Workplaces and work environment TAG (NS-TAST-GD-062).
SCHEDULE 3 Work involving particular risks	Regulation 12 (2)	Sets out a list of ten types of work with specific risks involved as referenced in Regulation 12(2).	None appear to be directly relevant.	No TIGs appear to directly capture these provisions.	No TAGs appear to directly capture these provisions.