

Make compliance second nature



If construction design forms a large part of your work, consider putting a CDM policy in place. It can help you satisfy your CDM duties... and make your life easier.

Design practices are not required by law to have a Construction Design and Management (CDM) policy. But, if your practice carries out a large amount of construction design, a CDM policy can be of great assistance. This is because it can help you to focus on how to discharge your duties under the Construction (Design and Management) Regulations 2015 (CDM 2015), in the context of your work.

If your organisation has five or more employees, it has a legal duty to provide a written health and safety policy (full details of this can be found on the HSE website: www.hse.gov.uk). Where this obligation exists, it often makes sense to widen the scope of the policy to include provisions relating to CDM.

A CDM policy should demonstrate that a design practice:

- **Is committed to implementing CDM 2015**
- **Is committed to an ongoing learning process**

The policy should also provide concise practical advice to designers about how they can satisfy all of the duties under CDM 2015 that apply to them.

A CDM policy ought to assist designers and principal designers in acquiring an awareness of CDM. If it is concise and user-friendly, the information it imparts will, over time, become a natural part of the design thought process.

This Guide provides advice on what a practice policy should contain to:

- **Make it effective**
- **Help designers and principal designers discharge their duties under CDM 2015**
- **Help designers deal with the duties of others**

Compiling the CDM policy

Preliminaries

It is necessary to demonstrate that the principals of a practice support the implementation of CDM. So, the policy could contain a statement to this effect, signed by the principal with responsibility for CDM.

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The policy could also clarify:

- **The level of CDM skills, knowledge and experience that it expects employees to have, taking into account their seniority. For example, a draftsman may not be expected to have the same degree of knowledge as a senior engineer**
- **Who is responsible for the overview of CDM on project**
- **Whether the practice has the necessary skills, knowledge and experience and organisational capability to accept principal designers commissions.**

Overview of CDM

There is not a lot to be gained from reciting the CDM Regulations verbatim. It is more important to ensure that designers understand the main principles behind them.

First, designers should try to make the dangerous non-dangerous. In other words, you should remove the hazard wherever it is possible to do so.

Where this is not possible, designers should make the dangerous less dangerous. So, you should reduce the chances of the hazard occurring.

If, having exhausted these possibilities, hazards remain, designers should alert the contractor to their existence. This will assist with the on-site management of them.

Technical content

The information in ADM004 **What designers should know** provides a good starting point, when it comes to developing the technical content of a practice policy.

A practice policy should contain a list of construction-site hazards that a designer's work may affect, and that a contractor has a legal obligation to control.

Rather than simply listing the hazards, a policy should explain where they may be encountered and how they can be created. It should also make clear that, in designing out one hazard, you may be introducing another. For example, the designing-out of manual handling may result in the designing-in of mechanical handling, which carries its own set of risks. In each case, designers will need to consider the merits of the alternatives that they specify.

Unavoidable hazards

Some hazards are, by their nature, unavoidable. The risks might be obvious, unclear, or a combination of the two. For example:

Construction activity	Obvious hazard	Less obvious hazard(s)
Excavations	The collapse of the sides of the excavation	<ul style="list-style-type: none"> • Flooding, in excavations below the water table • Hazardous materials, where the excavation takes place on contaminated land • Explosions, on sites containing gases such as methane • Those associated with confined spaces, in excavations that are deep and narrow
Installation of pipework between beams	Working at height	Those associated with working in confined spaces, where the beams are sufficiently close together and of sufficient depth

A practice policy should identify this matrix of hazards and present it in a form that is easily understood. Tabular layouts, which provide information at a glance, are particularly effective.

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Hazards created by design

Designers should be aware that the specification of a particular construction process could, in itself, create a hazard. This is because some processes carry inherent risks. For example:

Process	Potential risk(s)
Scabbling of concrete	Noise and vibration
Pile driving	Noise and vibration
Use of solvent-based paints	Potentially harmful vapours
Positioning of pre-cast concrete units	Working close to an unguarded leading edge
Breaking-out of piles by hand	Noise and vibration

In an effort to prevent the creation of hazards by design, a practice policy should contain a list of proscribed activities. This should then be implemented across the entire practice.

Processes to incorporate into such a list may include:

- **Continuous-flight augered piling in contaminated land**
- **Lifting loads over a large radius**
- **Scabbling concrete, unless it is absolutely necessary for the strength of a joint**
- **Painting of structural steelwork on site, except where it will be visually exposed**
- **Excavations that provide inadequate working space**

In addition to listing these activities, a policy should suggest alternative ways of achieving the same end result. For example:

- **Retarding and washing-off techniques could be used as an alternative to scabbling**
- **Quiet pile driving techniques could be employed**
- **Water-based paints could be used as an alternative to solvent-based paints**

Managing hazards on site

Where a particular item will help a contractor to manage a hazard on site, this should be specified in the CDM policy. The policy should also contain details to help standardise the specification of such items. Examples include:

- **The addition of holes to steelwork, to allow the anchoring of lanyards**
- **The incorporation of lifting-points in pre-cast or pre-assembled panels**
- **The use of lightweight blocks**

A CDM policy should also contain information about temporary works systems. This allows designers to make provision for the integration of such systems into the permanent works – temporary guardrails and anchor points providing two such examples.

Managing the CDM policy

A CDM policy should be kept up to date. It should be subject to continual review, to incorporate:

- **Feedback from construction sites**
- **Information about developments in the design of plant, or other items used in construction, where these are relevant to CDM**

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CDM 2015: how it applies to designers

The Regulations that apply to designers include (but are not limited to):

- **Regulation 8: This covers the individual and organisation skills, knowledge and experience needed to deliver CDM 2015 effectively and the organisational capability for the provision of effective individuals and teams on construction projects. The practical arrangements that demonstrate how this is achieved can be recorded in the practice policy and should include training and other continuing professional development. Regulation 8 also requires cooperation, reporting on danger and provision of information. Such wide-ranging duties can be simply explained in practice policy documents**
- **Regulation 9 and 10: These cover designer specific duties on all projects and include the arrangements for the import of overseas design into Great Britain**



Designers also need to know all of Part 2 of CDM 2015, that is Regulations 4 to 7 inclusive. These duties relate to the client's legal duties. The designer is likely to be the key client adviser and has a statutory duty to ensure the client is aware of the client's extensive duties. Designers also need to be familiar with Part 4 as this covers the site hazards included under CDM 2015. It highlights the activities that should be the focus of design hazard and risk management.

CDM 2015: how it applies to principal designers

The Regulations that apply to principal designers include (but are not limited to):

- **All the regulations that apply to designers**
- **Regulation 11: This requires the principal designer to plan, manage and monitor the pre-construction phase as the precursor to the requirements of Regulation 13 which requires the principal contractor to plan, manage and monitor the construction phase. This is an important role and should be compared to the role of the principal contractor to understand its breadth and depth on construction projects. Especially included in the role are the relationships with the client, the principal contractor and all designers. It is likely that the principal designer will need expert health and safety support in the same way that principal contractors have used health and safety expert services for decades**
- **Regulation 12: This concerns the production of the construction phase plan (led by the principal contractor) and the health and safety file (led by the principal designer). It is not uncommon for the principal designer function to end before the end of the project in which case there will no longer be a principal designer and the health and safety file becomes the responsibility of the principal contractor. This sort of detail needs to be addressed in the "Plan, manage, monitor" stages of practice methods of working.**

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Client duties under CDM2015

Under CDM 2015 building and construction professionals and service providers are required to ensure that clients understand their own duties before work begins. This gives clients an understanding of the options available to them and allows them time to decide what suits their needs best.

Practice policies can include a section specifically covering the kind of advice that would be useful for the kind of clients for whom the practice provides services. Additional services will require additional fees and the added value, usually by risk reduction and mitigation for the client, will need careful explanation. Care should be taken that this is not simply an advertorial section. Most professional institutions have high standards of ethical behaviour and take such matters seriously.

Getting to know ERIC

The principles underlying the CDM regulations can easily be remembered using the following mnemonic:

Eliminate
Reduce
Inform
Control

While most of the control activity is the responsibility of the contractor, designers are in an ideal position to eliminate, reduce and inform.

All of these activities must be considered in the context of other prevailing project-specific factors, and should only be implemented as far as reasonably practicable. You should briefly record any decisions to which these principles are applied – especially where the consequences could be high.

Stop, get ready, go!

A practice policy could include a traffic light system to govern the specification of construction processes.

Red = do not specify, unless there are no alternatives and safe systems of work can be imposed

Amber = specify with caution, and provide information to others

Green = actively select, wherever possible

Such a system also allows for the development of practice and project team competence, by establishing a set of common standards.

Useful resources

www.raeng.org.uk – The Royal Academy of Engineering and Engineering Council -
Engineering ethics in practice: a guide for engineers

See elsewhere on SiD:

ADM004 What designers should know

