



STEEL INDUSTRY  
GUIDANCE NOTES

# Construction (Design & Management) Regulations and the Role of the Designer.

CDM 2007 recognises the key role designers have regarding health and safety in construction.

The requirement on the designer is (so far as is reasonably practicable) to 'eliminate hazards which may give rise to risks' and to 'reduce risks from any remaining hazards'. This requires designers to consider if they are introducing a hazardous material or process. In practice there are potential hazards in almost everything so that a pragmatic view will need to be taken on all of the factors to be considered in the design. These factors will include health and safety, cost, fitness for purpose, aesthetics, buildability, maintenance, demolition and environmental impact. The regulations do not prescribe design outcomes but they do require designers to weigh the various factors and to reach reasoned, professional decisions.

Put simply, designers must not produce designs which cannot be constructed, used and maintained or demolished in reasonable safety.

Designers need to recognise that the amount the effort put in to eliminating hazards and reducing risk should depend upon the degree of risk.

The duties are the same for non notifiable and notifiable projects. Under the CDM regulations a designer is any person, including a client or contractor, who either

- Prepares or modifies a design, or
- Arranges for, or instructs, any person under their control to do so.

Designers need to take account of other relevant health and safety requirements when carrying out their work. Where the structure will be used as a workplace (e.g. factories, offices, schools, hospitals) they need to take account of the Workplace (Health, Safety & Welfare) Regulations 1992. This means taking account of risks directly relating to the proposed use of the structure.

## Who is a designer?

Designers include **everyone** who prepares or specifies designs for construction work, including variations. That means that the contractor, can easily attract design responsibilities under CDM 2007. For specific and detailed information regarding this you must refer to the CDM 2007 Regulations and Approved Code of Practice

It is also worth noting that a client may become a designer by insisting upon a specific material or design detail they may wish to see incorporated.

## What designers should do for a project?

- Make sure that they are competent and adequately resourced to address the health and safety issues likely to be involved in the design
- Check that clients are aware of their duties
- When carrying out design work, avoid foreseeable risks to those involved in the construction and future use of the structure. In doing so, they should eliminate hazards (so far as is reasonably practicable, taking account of other design considerations) and reduce risk associated with those hazards which remain
- Provide adequate information about any significant risks associated with the design
- Co-ordinate their work with that of others in order to improve the way in which risks are managed and controlled.

## Typical issues to be considered as relevant to 'use of the structure'.

- Those with impaired mobility.
- The various requirements of the Workplace Regulations.
- Slips, trips and falls arising from the design.
- A statutory obligation, see Disability Discrimination Act 1995 and associated guidance.
- Workplace (Health Safety and Welfare) Regulations 1992.
- Many 'use of the structure' operations involve temporary work at height; the design should take

careful account of these to check problems are not being built-in, e.g. changing the ubiquitous 'light bulb'.

- Traffic routes and circulation should allow for adequate separation of pedestrians and vehicles and eliminate reversing movements where practicable.
- Specified materials should not require cleaning materials which pose a health risk to those using them.
- Has the 'in use' health and safety implications of the proposed design been discussed and analysed with representatives of any known end-users?

## Providing information

Information should be brief, clear, precise, and in a form suitable for the users. This can be achieved using:

- Notes on drawings – this is preferred, since the notes will then be immediately available to those carrying out the work. They can refer to other documents if more detail is needed, and be annotated to keep them up to date;
- Written information provided with the design - this should be project specific, and should only contain information which will be useful to those constructing or maintaining the structure;
- Suggested construction sequences showing how the design could be erected safely, where this is not obvious, for example suggested sequences for putting up steel columns. Contractors may then adopt this method or develop their own approach.
- It is not always possible to provide all the information at the same time, particularly when design work is continuing whilst construction work is underway. In these circumstances information should be released as the design develops, but construction work should not be allowed to proceed unless all the information necessary for the work to be carried out safely has been provided.

Designers must provide information that other project team members are likely to need to identify and manage

the remaining risks. **This should be project specific, and concentrate on significant risks which may not be obvious to those who use the design.** For example, providing generic risk information about the prevention of falls is pointless, because competent contractors will already know what needs to be done, but if the design gives rise to a specific and unusual fall risk which may not be obvious to contractors, designers should provide information about this risk.

Too much paperwork is as bad as too little, because the useless hides the necessary. Large volumes of paperwork listing generic hazards and risks, most of which are well known to contractors and others who use the design are positively harmful, and suggest a lack of competence on the part of the designer.

## What designers don't have to do.

Under CDM2007, designers don't have to:

- Take into account or provide information about unforeseeable hazards and risks;
- Design for possible future uses of structures that cannot reasonably be anticipated from their design brief;
- Specify construction methods, except where the design assumes or requires a particular construction or erection sequence, or where a competent contractor might need such information;
- Exercise any health and safety management function over contractors or others; or
- Worry about trivial risks.

Designers are not legally required to keep records of the process through which they achieve a safe design, but it can be useful to record why certain key decisions were made. Brief records of the points considered, the conclusions reached, and the basis for those conclusions, can be very helpful when designs are passed from one designer to another. This will reduce the likelihood of important decisions being reversed by those who may not fully understand the implications of doing so.

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## Key Points

1. Inform the constructor if there are any unusual risks which they will need to be aware of.
2. Eliminate risk where possible and reduce risk from remaining hazards.
3. Supply the constructor with sufficient design information to allow them to comply with their duties, and especially those relating to health and safety.
4. Receive information from the CDM Coordinator on consultation and notification of, any design decisions taken on permanent or temporary work.

## Further sources of Information

British Constructional Steelwork Association  
Safety in Design  
Construction Skills  
The Construction (Design & management Regulations 2007

Managing Health & safety in Construction  
(Approved Code of Practice)

'Safer surfaces to walk on: reducing the risk of slipping'  
CIRIA C652,

'The Construction (Design and Management) Regulations 1994:  
Advice for designers in steel, SCI P162.