



Moresecure Health & Safety

GUIDE TO CONSTRUCTION
(DESIGN AND MANAGEMENT)
REGULATIONS 2007





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1. Introduction

Health and safety in the construction industry

2.2 million people work in Britain's construction industry, making it the country's biggest industry. It is also one of the most dangerous. In the last 25 years, over 2,800 people have died from injuries they received as a result of construction work. Many more have been injured or made ill.

The key aim of CDM2007 is to integrate health and safety into the management of the project and to encourage everyone involved to work together to:

- a) Improve the planning and management of projects from the very start;
- b) Identify risks early on so that they can be eliminated or reduced at the design or planning stage and the remaining risks can be properly managed;
- c) Target effort where it can do the most good in terms of health and safety; and
- d) Discourage unnecessary bureaucracy.

These regulations are intended to focus attention on planning and management throughout construction projects, from design concept onwards. The aim is for health and safety considerations to be treated as an essential, but standard part of project development or a project's development – not an afterthought or bolt on extra.

The Construction (Design and Management) Regulations [2007] (CDM2007) come into force on [1st April 2007]. They replace the Construction (Design and Management) Regulations 1994 (CDM94) and the Construction (Health, Safety and Welfare) Regulations 1996 (CHSW).

The effort devoted to planning and managing health and safety should be in proportion to the risks and complexity associated with the project.

When deciding what you need to do to comply with these Regulations, your focus should always be on action necessary to reduce and manage risks. Any paperwork produced should help with communication and risk management. Paperwork which adds little to the management of risk is a waste of effort, and can be a dangerous distraction from the real business of risk reduction and management.



Time and thought invested at the start of the project will pay dividends not only in improved health and safety, but also in:

- a) Reductions in the overall cost of ownership, because the structure is designed for safe and easy maintenance and cleaning work, and because key information is available in the health and safety file;
- b) Reduced delays;
- c) More reliable costings and completion dates;
- d) Improved communication and co-operation between key parties;
- e) Improved quality of the finished product;
- f) Reduction of accidents on site.

2. What are the main changes which have been incorporated into the revised Regulations?

The main changes which have been incorporated into the revised Regulations are:

1. An enhanced duty on Clients to better reflect the influence they have on health and safety standards on-site;
2. The removal of the facility for the Client to transfer their criminal liabilities under CDM 94 to a Client's agent;
3. A new duty holder (the Co-ordinator) to replace the existing Planning Supervisor. This new role to assist the Client in meeting their duties under the Regulations. Co-ordinators also retain the existing main duties of Planning Supervisors carried over from CDM 94 Regulations;
4. Much improved guidance for those who must assess competence of persons/organisations before appointing them

3. Notification: Regulations 2(3) and 21.

Except where the project is for a domestic Client, HSE must be notified of projects where construction work is expected to:

- Last more than 30 working days; or
- Involve more than 500 person days, e.g. 50 people working for over 10 days. All days on which construction work takes place count towards the period of construction work. Holidays and weekends do not count if no construction work takes place on these days.

The information that has to be sent to HSE is set out in Schedule 1 of CDM2007. A Form F10(rev) can be used and is available from HSE's local offices or can be completed online. The F(10) is a legal document that notifies the project falls under the CDM Regulations.

CDM Co-ordinators should notify HSE as soon as possible after their appointment. If the Principal Contractor is not appointed at that time then another, updated notification must be made after they have been appointed. Any missing information must be notified once it becomes available, and the notifier should make clear that it relates to an earlier notification. If a significant change occurs, it is helpful to notify HSE, for example, when a new Principal Contractor is appointed or if the start date changes by a month or more.



4. Summary of Duties under the Regulations

Clients (excluding domestic Clients)

All construction projects (Part 2 of the Regulations)

- Check competence and resources of all appointees
- Ensure there are suitable management arrangements for the project
- Allow sufficient time and resources for all stages
- Provide pre-construction information to designers and Contractors

Additional duties for notifiable projects (Part 3 of the Regulations)

- Appoint CDM Co-ordinator*
- Appoint Principal Contractor*
- Make sure that the construction phase does not start unless there are suitable welfare facilities and a construction phase plan in place
- Retain and provide access to the health and safety file

(* There must be a CDM Co-ordinator and Principal Contractor until the end of the construction phase)



CDM Co-ordinators

Additional duties for notifiable projects (Part 3 of the Regulations)

- Advise and assist the Client with his/her duties
 - Notify HSE
 - Co-ordinate health and safety aspects of design work and co-operate with others involved with the project
 - Facilitate good communication between Client, Designers and Contractors
 - Liaise with Principal Contractor regarding ongoing design
 - Prepare/update health and safety file
-

Designers

All construction projects (Part 2 of the Regulations)

- Eliminate hazards and reduce risks during design
- Provide information about remaining risks

Additional duties for notifiable projects (Part 3 of the Regulations)

- Check Client is aware of duties and CDM Co-ordinator has been appointed
- Check HSE has been notified
- Provide any information needed for the health and safety file

Principal Contractors

Additional duties for notifiable projects (Part 3 of the Regulations)

- Plan, manage and monitor construction phase in liaison with Contractors
- Prepare, develop and implement a written plan and site rules. (Initial plan completed before the construction phase begins)
- Give Contractors relevant parts of the plan
- Make sure suitable welfare facilities are provided from the start and maintained throughout the construction phase.
- Check competence of all their appointees
- Ensure all workers have site inductions and any further information and training needed for the work
- Consult with the workers
- Liaise with CDM Co-ordinator re ongoing design
- Secure the site



Contractors

All construction projects (Part 2 of the Regulations)

- Plan, manage and monitor own work and that of workers
- Check competence of all their appointees and workers
- Train own employees
- Provide information to their workers
- Comply with the specific requirements in part 4 of the regulations
- Ensure there are adequate welfare facilities for their workers

Additional duties for notifiable projects (Part 3 of the Regulations)

- Check Client is aware of duties and a co-ordinator has been appointed and HSE notified before starting work
- Co-operate with Principal Contractor in planning and managing work, including reasonable directions and site rules
- Provide details to the Principal Contractor of any Contractor whom he engages in connection with carrying out the work
- Provide any information needed for the health and safety file
- Inform Principal Contractor of problems with the plan
- Inform Principal Contractor of reportable accidents, diseases and dangerous occurrences

Everyone

- Check own competence
- Co-operate with others and co-ordinate work so as to ensure the health and safety of construction workers and others who may be affected by the work
- Report obvious risks
- Comply with requirements in Schedule 3 and Part 4 of the regulations for any work under their control

5. Clients explained

The Client has one of the biggest influences over the way a project is run. They have substantial influence and contractual control and their decisions and approach determine:

- The time, money and other resources available for projects;
- Who makes up the project team, their competence, when they are appointed and who does what;
- Whether the team is encouraged to co-operate and work together effectively;
- Whether the team have the information that they need about the site and any existing structures;
- The arrangements for managing and co-ordinating the work of the team

Because of this, they are made accountable for the impact their approach has on the health and safety of those working on or affected by the project. However, the Regulations also recognise that many Clients know little about construction health and safety, so Clients are not required or expected to plan or manage projects themselves. Nor do they have to develop substantial expertise in construction health and safety, unless this is central to their business. Clients must ensure that various things are done, but are not normally expected to do them themselves.

In the case of notifiable projects, Clients must appoint a competent CDM Co-ordinator. Those Clients without construction expertise should rely on the CDM Co-ordinator's advice on how best to meet their duties, but the CDM Co-ordinator will need the Client's support and input to be able to carry out their work effectively. The Client remains responsible for ensuring that Client duties are met.

Clients can also, intentionally or unwittingly, take on additional responsibilities. If they specify materials or methods of working they may well become Designers in relation to those specific matters. They will also legally be Contractors if they directly manage or carry out construction work.



Who are Clients?

Regulation 2

A Client is an organisation or individual for whom a construction project is carried out. Clients only have duties when the project is associated with a business or other undertaking (whether for profit or not). This can include for example, local authorities, school governors, insurance companies and project originators on Private Finance Initiative (PFI) projects. Domestic Clients are a special case and do not have duties under CDM2007.

What Clients must do for all projects:

Regulations 4-10

Clients must make sure that:

- Designers, Contractors and other team members that they propose to engage are competent (or work under the supervision of a competent person), are adequately resourced and appointed early enough for the work they have to do;
- They allow sufficient time for each stage of the project, from concept onwards;
- They co-operate with others concerned in the project as is necessary to allow other duty holders to comply with their duties under the regulations;
- They co-ordinate their own work with others involved with the project in order to ensure the safety of those carrying out the construction work, and others who may be affected by it;
- There are reasonable management arrangements in place throughout the project to ensure that the construction work can be carried out, so far as is reasonably practical, safely and without risk to health. (This does not mean managing the work themselves, as few Clients have the expertise and resources needed and it can cause confusion.);
- Contractors have made arrangements for suitable welfare facilities to be provided from the start and throughout the construction phase;
- Any fixed workplaces (eg offices, shops, factories, schools) which are to be constructed will comply, in respect of their design and the materials used, with any requirements of the Workplace (Health Safety and Welfare) regulations 1992;
- Relevant information likely to be needed by Designers, Contractors or others to plan and manage their work is passed to them in order to comply with regulation 10.

Co-operation, Co-ordination, Timeliness and Resources

Regulations 5, 6 and 9

Co-operation between parties and co-ordination of the work are key to the successful management of construction health and safety. Co-operation and co-ordination can only be meaningful if the relevant members of the project team have been appointed early enough to allow them to contribute to risk reduction. This is particularly important during the design stage when both Clients and Contractors should contribute to discussions on buildability, usability and maintainability of the finished structure. Clients should seek to appoint those who can assist with design considerations at the earliest opportunity so that they can make a full contribution to risk reduction during the planning stages.



Unrealistic deadlines and a failure to allocate sufficient funds are two of the largest contributors to poor control of risk on site. When engaging Designers and Contractors, and for notifiable projects appointing CDM Co-ordinators and Principal Contractors, Clients have to consider the resources (e.g. staff, equipment and particularly time) needed to plan and do the work properly. Any Contractors who are being considered for appointment should be informed of the minimum time period allowed to them for planning and preparation before construction work begins on site.

Contractors should be given sufficient time after their appointment to allow them to plan the work and mobilise the necessary equipment (e.g. welfare facilities) and staff to allow the work to proceed safely and without risk to health. This is particularly important where the project involves demolition work - Contractors must be given sufficient time for the planning and safe execution of any demolition activities.

Clients should consult with appointees (including the Principal Contractor) to find out how much time they will need for planning and preparation before work is expected to start in order that both parties can agree a suitable time period. Similarly, CDM Co-ordinators will need sufficient time after their appointment to carry out their duties under the regulations. Clients must then inform their appointees how much time the Client has allowed for planning and preparation before the work starts.

Arranging design work Regulations 4 and 5

Clients must only employ Designers who are competent to carry out their CDM duties.

Clients often employ more than one Designer, for example Architects, Civil, Structural and Services Engineers. In such cases they all need to know who does what and the timing of the appointments needs to enable the design work to be co-ordinated from an early stage. Nominating one Designer as the 'lead Designer' is often the best way to ensure co-ordination and co-operation during work which involves a number of Designers. For notifiable sites, this 'lead Designer' may be appointed as a CDM Co-ordinator under regulation 8, but the CDM Co-ordinator's duties are wider than just design co-ordination and suitable arrangements must be made to carry out all of the CDM Co-ordinator's tasks.



Management arrangements Regulation 9

Most Clients, particularly those who only occasionally commission construction work, will not be experts in the construction process and for this reason they are not required to take an active role in managing the work. Clients are required to take reasonable steps to ensure that suitable management arrangements are in place throughout the life of the project so that the work can be carried out safely and without risk to health.

The arrangements put in place should focus on the needs of the particular job and should be proportionate to the risks arising from the work.

For non-notifiable projects the Client will need to ensure that arrangements are in place to ensure that:

- a) There is clarity as to the roles, functions and responsibilities of members of the project team;
- b) Those with duties under the regulations have sufficient time and resource to comply with their duties;
- c) There is good communication, co-ordination and co-operation between members of the project team (e.g. between Designers and Contractors);

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- d) Designers are able to confirm that their designs (and any design changes) have taken account of the requirements of regulation 11 (Designer's duties), and that the different design elements will work together in a way which does not create risks to the health and safety of those constructing, using or maintaining the structure;
 - e) That the Contractor is provided with the pre-construction information
 - f) Contractors are able to confirm that health and safety standards on site will be controlled and monitored, and welfare facilities will be provided by the Contractor from the start of the construction phase through to handover and completion.

Most of these arrangements will be made by others in the project team, such as Designers and Contractors. Before they start work, a good way of checking is to ask the relevant members of the team to explain their arrangements, or to ask for examples of how they will manage these issues during the life of the project. When discussing roles and responsibilities on simple projects, all that may be needed is a simple list of who does what.

Having made these initial checks before work begins, Clients should make periodic checks through the life of the project to make sure the arrangements which have been made, are properly implemented and updated as the project progresses.

For non notifiable projects, only simple checks will be needed, for example:

- Checking that there is adequate protection for the Client's workers and/or members of the public;
- Checking to make sure that adequate welfare facilities have been provided by the Contractor;
- Checking that there is good co-operation and communication between Designers and Contractors,
- Checking that the arrangements which the Contractor agreed to make to control key risks on site have been implemented.

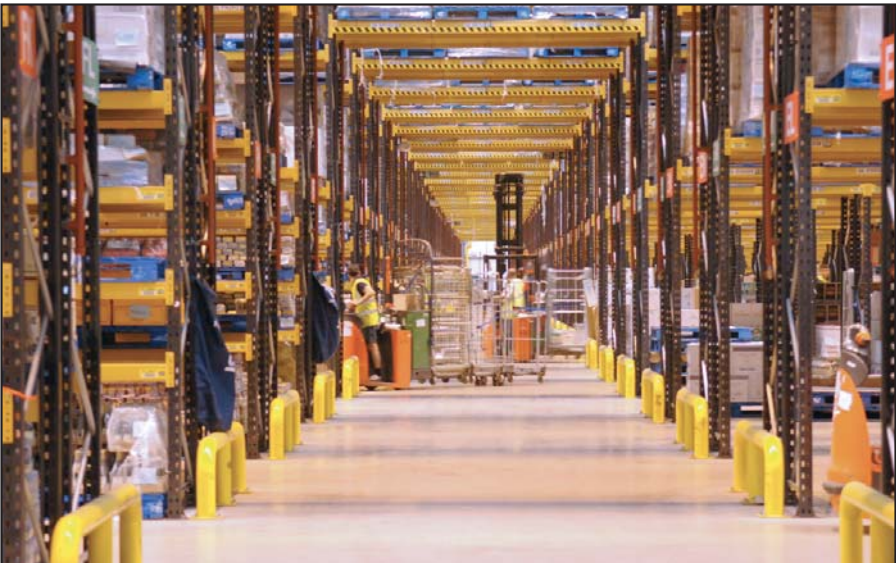


Providing the Pre-construction Information: Regulation 10

The pre-construction information provided should be sufficient to ensure that significant risks during the work can be anticipated and planned for. It should concentrate on those issues that Designers and Contractors could not reasonably be expected to anticipate or identify, and not on obvious hazards such as the likelihood that the project would involve work at height. Appendix 2 lists topics that should be considered when drawing up the pre-construction information.

The information needs to be in a form that is convenient, i.e. clear, concise and easily understood. However, it can be included in other documents, for example, the specification, providing the relevant health and safety issues are fully covered. Brief notes on 'as built' drawings are particularly useful, but should be checked in case significant alterations have been carried out. In the case of notifiable projects, CDM Co-ordinators will normally advise the Client as to what is needed and arrange for relevant information to be given to Designers and Contractors.

Clients are also required to tell Contractors who they engage to carry out construction work (including, where relevant, Principal Contractors), the minimum notice that they will be given before they are expected to start construction work. This is to ensure that Contractors have sufficient time to plan and prepare – e.g. mobilise their workforce and equipment, and make arrangements for welfare facilities to be provided.





Welfare Arrangements Regulations 5 and 6

Clients do not have to provide welfare facilities for construction workers, but if there are particular constraints, which make it difficult for facilities to be provided; the Client should co-operate with Contractors and assist them with their arrangements.

Additional things Clients must do for notifiable projects: Regulations 14, 15, 16 and 17

For notifiable projects, in addition to the duties set out above, Clients must:

- Appoint a CDM Co-ordinator to advise and assist with their duties and to co-ordinate the arrangements for health and safety during the planning phase;
- Appoint a Principal Contractor to plan and manage the construction work – preferably early enough for them to work with the Designer on issues relating to buildability, usability and maintainability. The right information for the right people at the right time;
- Ensure that the construction phase does not start until the Principal Contractor has prepared a suitable health and safety plan and made arrangements for suitable welfare facilities to be present from the start of the work;
- Make sure the health and safety file is prepared, reviewed, or updated ready for handover at the end of the construction work. This must then be kept available for any future construction work or to pass on to a new owner.

Getting the right people for these roles and making early appointments is particularly important for Clients with little construction or health and safety expertise. They will need to rely on the advice given by the CDM Co-ordinator on matters relating to the competence of those who they intend to appoint and the adequacy of the management arrangements made by appointees.

For notifiable projects, if a Client does not make these appointments they become legally liable for the work that the CDM Co-ordinator and Principal Contractor should do, as well as for not making the appointments.

Appointment of the CDM Co-ordinator Regulations 4 and 14

For notifiable projects, the Client must appoint a competent, adequately resourced CDM Co-ordinator as soon as possible after initial design work or other preparations for construction work have begun

The CDM Co-ordinator provides Clients with a key Project Advisor in respect of construction health and safety risk management matters. Their main purpose is to help Clients to carry out their duties; to co-ordinate health and safety aspects of the design work and to prepare the health and safety file.

Early appointment is crucial for effective planning and establishing management arrangements from the start. The regulations require the appointment to take place as soon as possible after initial design work or other preparation for construction work has begun. This allows the Client to appraise their project needs and objectives, including the business case and any possible constraints on development to enable them to decide whether or not to proceed before appointing the Co-ordinator. The Co-ordinator needs to be in a position to be able to co-ordinate design work and advise on the suitability and compatibility of designs, and therefore they should be appointed before significant detailed design work begins. Significant detailed design work includes preparation of the initial concept design and implementation of any strategic brief. As a scheme moves into the detailed design stage, it becomes more difficult to make fundamental changes that eliminate hazards and reduce risks associated with early design decisions.

Proper consideration of the health and safety implications of the design for those who build and maintain the structure will make a significant contribution to reducing its whole life cost, and will make delivery to time, cost and quality more likely.



The Co-ordinator can be an individual or a company. Co-ordinators can be appointed independently of any other role on the project team, or they may combine this work with another role, for example, Project Manager, Designer or Principal Contractor. Where the role is combined, it is crucial that the Co-ordinator has sufficient independence to carry out their tasks effectively. The tasks can be shared out, but when this happens it is important to make sure that all of the duties are discharged. On simple projects one person should be able to provide all of the support that Clients need, but a team approach will be more common for larger or more complicated projects because of the workload and skills required.



Appointment of the Principal Contractor Regulations 4 and 14

For notifiable projects, Clients must appoint one competent, adequately resourced Principal Contractor to plan, manage and monitor the construction work.

The Principal Contractor can be an organisation or an individual, and is usually the Main or Managing Contractor. A Principal Contractor's key duty is to co-ordinate and manage the construction phase to ensure the health and safety of everybody carrying out construction work, and those who are affected by the work.

The Principal Contractor must be appointed as soon as the Client knows enough about the project to select a suitable Contractor.

Early appointment allows the Principal Contractor and other specialists to eliminate and reduce health and safety risks, and avoid interruptions, delays and other problems, which can add significantly to project costs.

Early appointment is essential for the Principal Contractor to have sufficient time to develop an adequate construction phase health and safety plan and to arrange for appropriate resources, including welfare facilities, to be available when work commences on site. (Providing welfare facilities when work starts on site is a specific duty of the Principal Contractor, but the Client also has a duty to make sure that the Principal Contractor has done so.) Principal Contractors should be told as part of the pre-construction information, the minimum amount of time which they will be given for planning and preparation before the construction work is expected to start on site (Regulation 10(2)(c)).

There can only be one Principal Contractor at any one time. To ensure continuity, Clients should normally keep the same Principal Contractor for the whole project from site clearance and preparation to final completion. However, there may be exceptions, for example where:

- Preliminary works, e.g. involving demolition or site preparation work, where there is a substantial delay between site clearance and the start of new construction work;
- Separate projects for different Clients, e.g. for a building shell and subsequent fitting-out work.

In these cases, any change in Principal Contractor should:

- Be clear to, and agreed by all those involved, particularly in relation to the timing of the change;
- Be clearly recorded;
- Provide the practical authority to enable the Principal Contractor to discharge his duties. Management Arrangements Regulation 9 75. For notifiable projects, Clients must appoint a competent CDM Co-ordinator who will assist them with the assessment of the adequacy of the management arrangements made by others in the project team. Having appointed a competent CDM Co-ordinator, the Client is entitled to rely on their advice when making these judgements.



Before the Construction Phase Begins

Regulation 16

For notifiable projects, before construction work begins Clients must check to ensure that suitable welfare facilities have been provided by the Principal Contractor, and that the construction phase plan has been prepared by the Principal Contractor. With the help of the CDM Co-ordinator, Clients must ensure that the plan is project-specific and suitable.

Once the construction phase has begun, neither Clients nor CDM Co-ordinators have a duty to check that the plan is updated; this is the responsibility of the Principal Contractor.

The Health and Safety file

Regulation 17

For notifiable projects, the health and safety file ('the file') is a source of information that will help to reduce the risks and costs involved in future construction work, including cleaning, maintenance, alterations, refurbishment and demolition. Clients therefore need to ensure that the file is prepared and kept available for inspection in the event of such work. It is a key part of the information, which the Client, or the Client's successor, must pass on to anyone preparing or carrying out work to which CDM2007 applies.

As soon as a CDM Co-ordinator is appointed, Clients should discuss and agree a suitable, user-friendly format for the file and what type of information it should contain. At the end of the construction phase, normally at practical completion, the file must be finalised and given to the Client by the CDM Co-ordinator. In some cases, for example where there is partial occupation or phased handover of a project it may be needed earlier to inform other work. For this to happen, CDM Co-ordinators need to make appropriate arrangements at the beginning of the project to collect and compile the information that is likely to be needed for the file as work progresses.



Completion and Handover (All projects)

Regulation 9

One of the most important stages in a project is when it nears completion and is handed over to the Client. It is rare for all construction work to be completed before handover. Sometimes Clients, in their eagerness to have things up and running, assume control when a great deal of construction work remains.

Risks to employees and others not engaged in construction work can increase substantially as they visit the site or spend more time there. The risks to the construction workers can also increase, due to the presence and work of others not directly engaged or experienced in construction work.

To minimise such risks, the management of this phase needs to be considered well in advance to address:

- The nature, scope and duration of any finishing off work;
- How this work will be managed and by whom;
- How the site will be split up and access controlled to safeguard construction workers as well as Clients' employees and/or members of the public.

For simple projects these arrangements can be discussed and agreed between the various parties. In more complex situations, the arrangements should be recorded as part of the construction phase plan.



6. CDM Co-ordinators explained

(Notifiable projects only).

The role of CDM Co-ordinator is to provide the Client with a key Project Advisor in respect of construction, health and safety and risk management matters. They should assist and advise the Client on appointment of competent Contractors and the adequacy of management arrangements; ensure proper co-ordination of the health and safety aspects of the design process; facilitate good communication and cooperation between project team members and prepare the health and safety file.

Through early involvement with Clients and Designers, a CDM Co-ordinator can make a significant contribution to reducing risks to workers during construction, and to Contractors and end users who work on or in the structure after construction.



What CDM Co-ordinators should do Regulation 20

CDM Co-ordinators must:

- a) Give suitable and sufficient advice and assistance to Clients in order to help them to comply with their duties, in particular:
 - The duty to appoint competent Designers and Contractors; and
 - The duty to ensure that adequate arrangements are in place for managing the project;
- b) Notify HSE about the project;
- c) Co-ordinate design work, planning and other preparation for construction where relevant to health and safety;
- d) Identify and collate the pre-construction information and advise the Client if surveys need to be commissioned to fill significant gaps;
- e) Promptly provide in a convenient form to those involved with the design of the structure and to every Contractor (including the Principal Contractor) who may be or has been appointed by the Client, such parts of the pre-construction information which are relevant to each;

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- f) Manage the flow of health and safety information between Clients, Designers and Contractors;
 - g) Advise the Client on the suitability of the initial construction phase plan and the arrangements made to ensure that welfare facilities are on site from the start;
 - h) Produce or update a relevant, user friendly health and safety file, suitable for future use at the end of the construction phase.



Advising the Client on Competency of Designers and Contractors: Regulations 4 and 20

Clients are responsible for appointing competent and adequately resourced Designers and Contractors (including Principal Contractors). Most Clients, particularly those whose involvement with construction work is limited or non-existent, will not have the expertise necessary to assess the competency and resource of Designers and Contractors. A competent CDM Co-ordinator will have this knowledge and expertise and they should assist Clients with these assessments.

Managing Information Flow Regulations 10, 15 and 20

Co-operation and co-ordination can only be achieved if there is good communication between all parties involved in a particular aspect of a project. During planning stages the CDM Co-ordinator needs to make sure that there are appropriate systems in place to encourage communication and the sharing of relevant information, and CDM Co-ordinators should manage the flow of information between the team members. They may need to convene meetings if they are not satisfied there is sufficient co-operation between Designers or with other team members or if adequate regard is not being given to health and safety. It is, however, better for these issues to be addressed in routine project meetings.

Providing Information

Regulations 10, 15 and 20

Clients must provide Designers and Contractors who may be bidding for the work with the project-specific health and safety information needed to identify hazards and risks associated with the design and construction work. (The pre-construction information).

For notifiable projects, Clients are required to provide this information to the CDM Co-ordinator. The CDM Co-ordinator should check the information to ensure that it is complete, advise the Client if there are any significant gaps or defects, and ensure these are filled by commissioning surveys or by making other reasonable enquiries. The CDM Co-ordinator should then provide Designers or Contractors who may be bidding for, or preparing to carry out construction work on site, with such parts of the pre-construction information that are relevant to each.

Advising the Client on adequacy of Management Arrangements:

Regulations 9 and 20

Clients must make sure that there are suitable (project specific) arrangements for managing each project so that the work can be carried out safely and without risk to health. Most Clients, particularly those who only occasionally commission construction work, will not be experts in the construction process and will not wish to become too involved with the day to day management decisions. The regulations do not require Clients to take an active role in managing the work, but they do require Clients to take reasonable steps to ensure that suitable management arrangements are in place throughout the life of the project.

The CDM Co-ordinator should assist and advise Clients with the development of appropriate arrangements. They should assist the Client with decisions about how much time Contractors will need to prepare before construction work begins.

When advising and assisting the Client, the following issues should be considered:

- a) Is the Client aware of their duties and do they understand what is expected of them?
- b) Has the Client prepared relevant information about the site in order to meet their duties under Reg 10?
- c) Have the necessary appointments been made and has the project been notified?

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- d) Is there an established project team who meet regularly to discuss and co-ordinate activities in relation to the project?
 - e) Are project team members clear about their roles and responsibilities?
 - f) Are their arrangements in place for co-ordinating design work and reviewing the design to ensure that the requirements in Reg 11 are being addressed?
 - g) Are their arrangements in place for dealing with late changes to the design and for co-operating with Contractors so that problems are shared?
 - h) Has the Principal Contractor been given enough time to plan and prepare for the work, and mobilise for the start of the construction phase?
 - i) Has the Principal Contractor made arrangements for providing welfare facilities on site from the outset, and have they prepared a construction phase plan that addresses the main risks during the early stages of construction?
 - j) Are there suitable arrangements for developing the plan to cover risks that arise as the work progresses?
 - k) Has the format for the health and safety file been agreed, and are arrangements in place for collating the information which it will contain?
 - l) Has the Principal Contractor put in place suitable arrangements for consulting with workers on site; for carrying out site induction and for ensuring that workers are adequately trained and supervised?

Not all of these questions will need answers at the start of the project and the arrangements will need to evolve as the project develops. The key thing is to plan ahead so that arrangements are in place before the risks that need managing, materialise on site.

Co-ordinating Design Work - Design Reviews Regulation 20

The CDM Co-ordinator's legal responsibility in respect of design work only extends to health and safety aspects of the design – checking that the requirements of regulation 11 have been addressed and that the different design elements work together without causing danger. This is best achieved through design reviews during which health and safety issues are addressed alongside practicality and cost in a wider review of the design's buildability, maintainability and usability.



When considering buildability, meetings should where possible include the Contractor so that difficulties associated with construction can be discussed and solutions agreed before the work begins. When discussing usability and maintainability, involving the Client or those who will be responsible for operating the building or structure will mean that proper consideration can be given to the health and safety of those who will maintain and utilise the structure upon completion. Doing this during the design stage will result in significant cost savings for the Client, as rectifying mistakes after the structure has been built is always expensive.

As part of design reviews, CDM Co-ordinators need to ensure that safe methods for construction work have been identified, and that the designs include the information needed by other Designers and Contractors to allow them to work safely and without risk to health. This information needs to be clear and concise.

The timing of the reviews also need careful consideration. Designs need to be advanced enough for people to have a clear view of what is in mind, but not too evolved so that proposals can be modified if necessary. Design is an iterative process so it may need reviewing at several different stages. The effort devoted to design reviews should be in proportion to the risks and complexity. CDM Co-ordinators who identify important health and safety issues that have not been addressed in the design must draw them to the attention of the Designer.

The CDM Co-ordinator and the Construction Phase

Regulation 20

Design often continues throughout a project and CDM Co-ordinators have a continuing role during the construction phase – ensuring that Designers, including those engaged by a Contractor and Contractors who carry out design work themselves, co-operate with each other, and designs meet the requirements of the Regulations. Where design changes and decisions during the construction phase have significant health and safety implications, CDM Co-ordinators should liaise with the Principal Contractor about any implications for the construction phase plan.

The design of temporary works, such as falsework, formwork and scaffolding, falls within the scope of CDM2007. CDM Co-ordinators have to take reasonable steps to ensure co-operation between permanent and temporary works Designers, in particular to ensure that arrangements are in place to ensure that designs are compatible and that the permanent works can support any loadings from temporary works.

CDM Co-ordinators need to pay particular attention to late designs or late changes to designs. Examples would be revisions on Architects' instructions, when Clients require changes or when unforeseen problems are encountered on site. The CDM Co-ordinator should make sure that there are arrangements in place to ensure that such changes do not result in significantly increased risks on site.

Health and Safety File

Regulations 17 and 20

CDM Co-ordinators must prepare a suitable health and safety file, or update it – if one already exists. It is important that they discuss this with the Client before work starts on site so that the format can be agreed, along with who should provide what information, when. This requires the co-operation of several duty holders so Co-ordinators need to make sure that Designers and Contractors know, early on, what they will have to provide.

Clients may need to provide incentives or include requirements in contracts to ensure that the information is given to the CDM Co-ordinator immediately after relevant design or construction work is completed. At the end of a project the CDM Co-ordinator should give the completed file to the Client for safekeeping.

7. Designers explained

Designers are in a unique position to reduce the risks that arise during construction work and have a key role to play in CDM2007.

Designs develop from initial concepts through to a detailed specification, often involving different teams and people at various stages. At each stage, Designers from all disciplines can make a significant contribution by identifying and reducing, if not eliminating hazards wherever possible.

Designers' earliest decisions fundamentally affect the health and safety of construction work. These decisions influence later design choices and considerable work may be required if it is necessary to unravel earlier decisions. It is therefore vital to address health and safety from the very start.

Designers' responsibilities extend beyond the construction phase of a project. They also need to consider the health and safety of those who will maintain, repair, clean, refurbish and eventually remove or demolish all or part of a structure as well as the health and safety of users of workplaces. For most Designers, buildability considerations and ensuring that the structure can be easily maintained and repaired will be part of their normal work, and thinking about the health and safety of those who do this work should not be an onerous duty. Failure to address these issues adequately at the design stage will usually increase running costs because Clients will then be faced with more costly solutions when repairs and maintenance become necessary.

Where significant risks remain when they have done what they can, Designers should provide information with the design to ensure that the CDM Co-ordinator, other Designers and Contractors are aware of these risks and can take account of them. Designers also have duties under other legislation, including those parts of the Management of Health and Safety at Work Regulations 1999 which require risk assessment. Compliance with regulation 11 of CDM 2007 will usually be sufficient for Designers to achieve compliance with regulations 3(1), (2) and (6) of the Management Regulations as they relate to the design of the structure.





Who are Designers? Regulation 2

Designers are those who have a trade or a business that involves them in:

- Preparing designs for construction work, including variations. This includes preparing drawings, design details, specifications, bills of quantities and the specification (or prohibition) of articles and substances, as well as all the related analysis, calculations, and preparatory work;

or

- Arranging for their employees or other people under their control to prepare designs relating to a structure or part of a structure. It does not matter whether the design is recorded (e.g. on paper or a computer) or not (e.g. it is only communicated orally).

Designers therefore include:

- a) Architects, Civil and Structural Engineers, Building Surveyors, Landscape Architects, other consultants, manufacturers and design practices (of whatever discipline) contributing to, or having overall responsibility for any part of the design. For example, engineers designing the drainage for a new development;
- b) Anyone who specifies or alters a design, or who specifies the use of a particular method of work or material, such as a Design Manager, Quantity Surveyor who insists on specific material or a Client who stipulates a particular layout for a new building;

-
- c) Building Service Designers, engineering practices or other designing plants which forms part of the permanent structure (including lifts, heating, ventilation and electrical systems). For example a specialist provider of permanent fire extinguishing installations;
 - d) Those purchasing materials where the choice has been left open, for example those purchasing building blocks and so deciding the weights that bricklayers must handle;
 - e) Contractors carrying out design work as part of their contribution to a project, such as an Engineering Contractor providing design, procurement and construction management services;
 - f) Temporary Works Engineers, including those designing auxiliary structures, such as formwork, falsework, façade retention schemes, scaffolding, and sheet piling;
 - g) Interior Designers, including shop-fitters who also develop the design;
 - h) Heritage organisations who specify how work is to be done in detail, for example providing detailed requirements to stabilise existing structures;
- and
- i) Those determining how buildings and structures are altered, e.g. during refurbishment, where this has the potential for partial or complete collapse.

Local authority or government officials may provide advice relating to designs and relevant statutory requirements, e.g. the building regulations, but this does not make them Designers. This is because these are legal requirements where the Designer has no choice in respect of compliance. Any such requirements should be treated as 'design constraints' in the usual way. However, if the statutory bodies require that particular features which are not statutory requirements are included or excluded (e.g. stipulating the use of hazardous substances for cleaning or the absence of edge protection on flat roofs), then they are Designers and must ensure that they comply with these Regulations.

Manufacturers supplying standardised products that can be used in any project are not Designers under CDM2007, although they may have duties under supply legislation. The person who selects the product is a Designer and must take account of health and safety issues arising from its use. If a product is purpose-made for a project, the person who prepares the specification is a Designer under CDM2007, and so is the manufacturer who develops the detailed design.

What Designers should do for all projects Regulations 4, 5, 6, 11 and 18

Designers should:

- a) Make sure that they are competent and adequately resourced to address the health and safety issues likely to be involved in the design;
- b) Check that Clients are aware of their duties;
- c) When carrying out design work, avoid foreseeable risks to those involved in the construction and future use of the structure, and 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;
- d) Provide adequate information about any significant risks associated with the design;
- e) Co-ordinate their work with that of others in order to improve the way in which risks are managed and controlled;

In carrying out these duties, Designers need to consider the hazards and risks to those who:

- a) Carry out construction work including demolition;
- b) Clean any window or transparent or translucent wall, ceiling or roof in or on a structure or maintain the permanent fixtures and fittings;
- c) Use a structure designed as a place of work;
- d) May be affected by such work, for example customers or the general public.

When do these duties apply? Regulations 11 and 12.

These duties apply whenever designs are prepared which may be used in construction work in Great Britain. This includes concept design, competitions, bids for grants; modifications of existing designs and relevant work carried out as part of feasibility studies. It does not matter whether or not planning permission or funds have been secured; the project is notifiable or high-risk; or the Client is a domestic Client.



Making Clients aware of their responsibilities

Regulation 11(1)

Designers are often the first point of contact for a Client and CDM2007 requires them to check that Clients are aware of their duties under the Regulations. The leaflet produced by the Construction Clients Group (CCG)⁸, will be sufficient to explain what these duties are. The duty to inform is aimed at the Designer who has the initial or main contact with the Client. Other Designers need take no action unless they have reason to suspect that Clients are not aware of their duties.



Preparing a Design

Regulation 11(4)

Designers have to weigh many factors as they prepare their designs. Health and safety issues have to be weighed alongside other considerations, including cost, fitness for purpose, aesthetics, buildability, maintainability and environmental impact. CDM2007 allow Designers to take due account of other relevant design considerations. The regulations do not prescribe design outcomes, but they do require Designers to weigh the various factors and reach reasoned, professional decisions.

Designers are required to avoid foreseeable risks 'so far as is reasonably practicable, taking account of other relevant design considerations'. The greater the risk, the greater the weight that must be given to eliminating or reducing it. Of course Designers are not expected to consider or address risks which cannot be foreseen and the Regulations do not require zero risk designs because this is simply impossible. However, Designers must not produce designs that cannot be constructed, maintained, used or demolished in reasonable safety.

Designers should critically assess their design proposals at an early stage, and then throughout the design process, to ensure that health and safety issues are identified, integrated into the overall design process and addressed as they go along. It is pointless to complete the design first, then try to address the risks which the design has introduced. By then, all of the key decisions are likely to have been taken and no one will be willing to make any changes because of the time and cost involved.

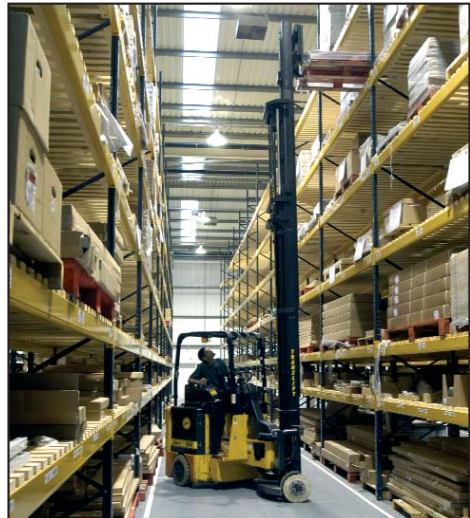
The first thing that Designers need to do is eliminate hazards (things with a potential to cause harm) from their designs so far as is reasonably practicable, taking account of other design considerations. Eliminating hazards removes the associated risk, and is therefore the best option and should always be the first choice.

It is not always reasonably practicable to eliminate hazards, and where this is the case consideration should be given to incorporating design solutions which reduce the overall risk to an acceptable level.

This can be done by reducing the:

- Likelihood of harm (injury or adverse health effect);
- Potential severity of the harm;
- Number of people exposed to the harm; and
- Frequency or duration of exposure to harm

The amount of effort put in to eliminating hazards and reducing risks should depend on the degree of risk. There is little point in spending a lot of money, time and trouble on low risk issues. There is also little to be gained by detailed comparison of construction techniques that present similar risks, for example whether to specify a steel frame or concrete portal building. The focus should be on issues that are known to have the potential to cause significant harm, and where there are known solutions that reduce the risks to everyone exposed



Designers also need to take account of other relevant health and safety requirements when carrying out design work. Where the structure will be used as a workplace, (e.g. factories, offices, schools, hospitals) they need to take account of the provisions of the Workplace (Health, Safety and Welfare) Regulations 1992 which relate to the design of, or materials used in the structure. This means taking account of risks directly related to the proposed use of the structure, including associated private roadways and pedestrian routes, and risks arising from the need to clean and maintain the permanent fixtures and fittings.

Providing information

Regulation 11(5)

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. However, 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.

Designers also need to provide information about aspects of the design that could create significant risks during future construction work or maintenance. If in doubt about the level of information needed, the best way to find out is to ask those who will use it.

Significant risks are not necessarily those that involve the greatest risks, but those, including health risks that are:

- Not likely to be obvious to a competent Contractor or other Designers;
- Unusual;

or

- Likely to be difficult to manage effectively.

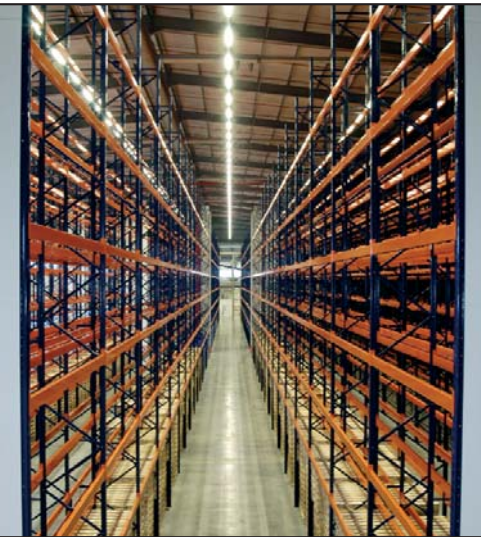
Information should be brief, clear, precise, and in a form suitable for the users. This can be achieved using:

- 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;



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- 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 pre-cast panel concrete structures. 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.



Co-operation Regulation 5

Designers must co-operate with the Client, and other Designers and Contractors, including those designing temporary works. This is to ensure that incompatibilities between designs are identified and resolved as early as possible, and that the right information is provided in the pre-construction information.

For smaller projects where most of the work is done by a single Designer, this can be achieved through discussion with those who use or are affected by the design. For larger projects or those involving significant risks, a more managed approach will be necessary.

Co-operation can be encouraged by:

- a) Setting up an integrated team involving Designers, Principal Contractor and other relevant Contractors;
- b) The appointment of a lead Designer, where many Designers are involved;
- c) Agreeing a common approach to risk reduction during design;
- d) Regular meetings of all the design team (including the Co-ordinator) with Contractors and others;

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- e) Regular reviews of developing designs;
 - f) Site visits, through which Designers can gain a direct insight into how the risks are managed in practice.

Regular reviews of the design involving all members of the design team are particularly important in making sure that proper consideration is given to buildability, usability and maintainability.

When considering buildability, meetings should include the Contractor so that difficulties associated with construction can be discussed and solutions agreed before the work begins. When discussing usability and maintainability, involving the Client or those who will be responsible for operating the building or structure will mean that proper consideration can be given to the health and safety of those who will maintain and use the structure once it has been completed. Doing this during the design stage will result in significant cost savings for the Client, as rectifying mistakes after the structure has been built is always expensive.

Additional duties where the project is notifiable

- a) Ensure that the Client has appointed a CDM Co-ordinator and notified HSE;
- b) Ensure that they do not start design work other than initial design work unless a CDM Co-ordinator has been appointed;
- c) Co-operate with the CDM Co-ordinator, Principal Contractor and with any other Designers or Contractors as necessary for each of them to comply with their duties. This includes providing any information needed for the pre-construction information pack or health and safety file.

For a notifiable project, Designers need to ensure that a CDM Co-ordinator has been appointed and HSE has been notified about the project. If appointment and notification have been done, then Designers can assume that the Client is aware of their duties.

Once the CDM Co-ordinator has been appointed, the Designer will need to co-operate with them and provide the information, which the CDM Co-ordinator needs in order to comply with their duties.

8. The Principal Contractor explained

(Notifiable projects only)

Good management of health and safety on site is crucial to the successful delivery of a construction project. The key duty of Principal Contractors is to properly plan, manage and co-ordinate work during the construction phase in order to ensure that the risks are properly controlled. Principal Contractors must also comply with the duties placed on all Contractors under the Regulations.

Principal Contractors are usually the Main or Managing Contractor. This allows the management of health and safety to be incorporated into the wider management of project delivery. This is good business practice as well as being helpful for health and safety purposes.

Although written plans are only legally required for notifiable projects, all projects must be properly planned and managed and the Principles set out in this section may be relevant to those who plan for non-notifiable projects.

What Principal Contractors must do

Regulations 4, 5, 6 and 22-24 and Part 4 of the Regulations.

- a) Satisfy themselves that Clients are aware of their duties, that a CDM Co-ordinator has been appointed and HSE notified before they start work;
- b) Make sure that they are competent to address the health and safety issues likely to be involved in the management of the construction phase;



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- c) Ensure that the construction phase is properly planned, managed and monitored, with adequately resourced, competent site management appropriate to the risk and activity;
 - d) Ensure that every Contractor who will work on the project is informed of the minimum amount of time which they will be allowed for planning and preparation before they begin work on site;
 - e) Ensure that all Contractors are provided with the information about the project that they need to enable them to carry out their work safely and without risk to health. Requests from Contractors for information should be met promptly;
 - f) Ensure safe working and co-ordination and co-operation between Contractors;
 - g) Ensure that a suitable construction phase health and safety plan ('the plan') is:
 - prepared before construction work begins;
 - developed in discussion with, and communicated to, Contractors affected by it;
 - implemented; and
 - kept up to date as the project progresses;
 - h) Satisfy themselves that the Designers and Contractors are competent and adequately resourced;
 - i) Ensure suitable welfare facilities are provided from the start of the construction phase;
 - j) Take reasonable steps to prevent unauthorised access to the site;
 - k) Prepare and enforce any necessary site rules;
 - l) Provide (copies of or access to) relevant parts of the plan and other information to Contractors, including the self-employed, in time for them to plan their work;
 - m) Liaise with the CDM Co-ordinator on design carried out during the construction phase, including design by specialist Contractors, and its implications for the plan;
 - n) Provide the CDM Co-ordinator promptly with any information relevant to the health and safety file;
 - o) Ensure that all the workers have been provided with suitable health and safety induction, information and training;
 - p) Ensure that the workforce is consulted about health and safety matters;
 - q) Display the project notification.
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Co-operation and Co-ordination

Regulations 5 and 6

Good co-operation and co-ordination of work between all of the parties involved in a project is essential if risks are to be identified early on and properly controlled. Principal Contractors should take the lead and actively encourage co-operation and co-ordination between Contractors from an early stage. A team approach involving the Client,

Designers, Contractors and even manufacturers who work closely together will often produce the best results. This allows the Client, Designers, Contractors and Facilities Management experts, together, to identify the best solution for the Client's needs, taking account of the practicalities of construction work, maintenance and use. Even on projects where it is not practical to formally establish an integrated team, the Client, Designer, Contractors and others involved in the project still need to work together.

If there are other projects on the same or neighbouring sites (e.g. adjacent units on the same industrial estate) then the co-operation and co-ordination needs to extend to those involved with such projects. If this need can be identified early on, the risks that one project may cause for the other can also be identified and addressed in the early stages of project planning. If potential problems are not identified until the actual work has started, they can be much more difficult to address.



Good, timely communication is essential to co-operation and co-ordination of activities. Information about risks and precautions need to be shared sensibly (i.e. relevant information, not everything) when it is needed to plan and manage work. Drawings can be used to highlight hazards or unusual work sequences identified by Designers, with advice on where to find more information, if required. Induction training and Tool Box Talks help to ensure workers understand the risks and precautions, and are a good opportunity to inform workers of site rules or any special risks relating to the project

How many Principal Contractors can there be for each project?

Regulation 14(2)

There can only be one Principal Contractor for a project at any one time. However, sometimes two or more projects take place on a site at the same time. This can occur if different Clients commission adjacent work, or if a Client procures two truly independent, unrelated packages of work which do not rely upon one another for their viability or completion.

Where overlapping projects are running on a single construction site, it is best to appoint one Principal Contractor for them all. If this is not done, all the Principal Contractors must co-operate, and their plans must take account of the interfaces – e.g. in traffic management. The requirements of regulations 8, 9 and 11 of the Management Regulations are also relevant.

Planning and managing health and safety in the construction phase

Regulation 22(1)(a)

Principal Contractors must plan, manage and co-ordinate work during the construction phase taking account of the information contained in the pre-construction information provided by the Client, and any other information provided by Contractors.

The effort devoted to planning and managing health and safety should be in proportion to the risks and complexity associated with the project.

The Principal Contractor should work with other Contractors to identify the hazards and assess the risks related to their work, including the risks they may create for others. Using this information and applying the Principles of prevention (Schedule 1 of the Management Regulations) the Principal Contractor, in discussion with the Contractors involved, must plan, manage and co-ordinate the construction phase.

This includes supervising and monitoring work to ensure that it is done safely and that it is safe for new activities to begin.



Where the project involves high-risk work, for example, alterations that could result in structural collapse or work on contaminated land, specialist advice is likely to be needed at the planning stage.

The Health and Safety Plan

Regulation 23

The way in which the construction phase will be managed and the key health and safety issues for the particular project must be set out in writing in the construction phase plan. This plan should set out the organisation and arrangements that have been put in place to manage risk and co-ordinate the work on site. It should not be a repository for detailed generic risk assessments, records of how decisions were reached or detailed method statements, but it may, for example, set out when such documents will need to be prepared. It should be well focused, clear and easy for Contractors and others to understand – emphasising key points and avoiding irrelevant material. It is crucial that all relevant parties are involved and co-operate in the development and implementation of the plan as work progresses.

The plan must be tailored to the particular project. Generic plans that do not contain the information relevant to the particular risks associated with the work will not satisfy the requirements of regulation 23. Photographs and sketches can greatly simplify and shorten explanations. It should also be organised so that relevant sections can easily be made available to Designers and Contractors.

Often the design and preparation for later work is not complete at the start of the construction phase. Nevertheless, the plan for the initial phase of the construction work must be prepared before any work begins. It should also address later activities that will require careful planning. It may only be practical to address such activities in outline form before work starts and most will require revision in the light of developments.

The topics that need to be addressed when developing the construction phase plan are shown at appendix 3. Where other available documents address these issues appropriately, the plan may refer to them; the information does not need to be repeated.

Implementing and Monitoring the plan

Regulation 23(1) and 42

A plan is no use if it is treated as merely a paper exercise and gathers dust. To improve standards, it must be a practical aid to the management of health and safety on site. Principal Contractors and other Contractors have a particular role in both implementing and monitoring the plan to ensure that it works in practice. Monitoring arrangements will need to be discussed and agreed with the Client as they form part of the management arrangements.



The purpose of monitoring is to ensure that the precautions described in the construction phase plan are appropriate and followed in practice. Where Contractors do not work safely or comply with the plan, Principal Contractors must take appropriate action to deal with the risk. They can give reasonable directions to any Contractor and Contractors have to comply, whether they have been appointed by the Principal Contractor or not – regulation 19(2). Principal Contractors are responsible for ensuring the health and safety of everyone on site. Everyone on site (including the Client, anyone working for the Client and workers of utility companies) must co-operate with the Principal Contractor to enable them to comply with their duties.

The plan needs to be routinely reviewed, revised and refined by the Principal Contractor as the project develops. For example, where the plan is not being followed, and health and safety is put at risk, those involved must take appropriate action to deal with the risk. Monitoring may show the plan has shortcomings and needs to be modified. Any significant changes in the plan should be brought to the attention of all those affected.

Site Rules

Regulation 22 (1) (d)

Principal Contractors should include any necessary rules for the management of construction work in the health and safety plan, which others on the site have to follow. These may cover issues such as restricted areas, permit-to-work systems, hot-work and emergency plans. In order to avoid cluttering the plan with detailed arrangements for implementing site rules, the plan should refer to other documents or put detailed arrangements in appendices.

Site rules should be:

- set out in writing;
- understandable to those who have to follow them;
- brought to the attention of everyone who has to follow them;
- enforced.

Copies of the site rules should be displayed on site in a place where they can be seen by those who work there.

Display of notification to HSE

Regulation 22 (1) (k)

The Principal Contractor must display a legible copy of the most up-to-date information notified to HSE where it can be read by people working on the site. This is the F(10) Document.



Controlling access onto sites

Regulation 22(1)(l)

A Principal Contractor must take reasonable steps to prevent access by unauthorised persons to the construction site.

Only people who are explicitly authorised, individually or collectively, by the Principal Contractor, should be allowed access.

The authorisation may cover the whole site or be restricted to certain areas.

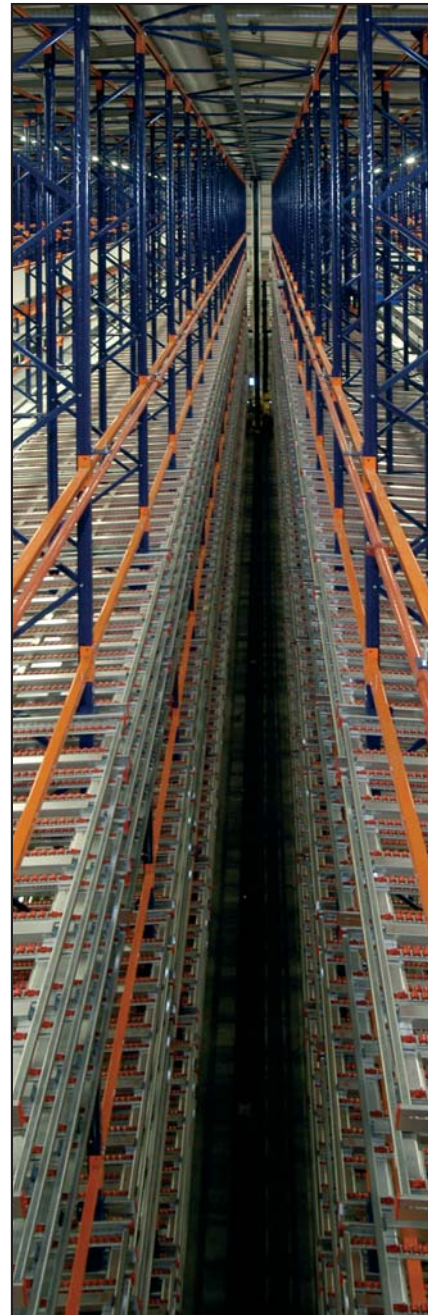
Authorised people should have relevant site rules explained to them and undertake any necessary site induction, and should comply with site rules and co-operate with the Principal Contractor. Some authorised visitors may need to be supervised or accompanied while on site or visiting specific areas.

How access is controlled depends on the nature of the project, the risks and location. The boundaries of all sites should be physically defined, so far as is reasonably practicable, by suitable fencing. The type of fencing should reflect the nature of the site and its surroundings.

Special consideration is needed where:

- rights of way cross sites;
- sites are in, or next to, other work areas;
- new houses are being built on a development where some houses are already occupied; or
- there are children or other vulnerable people nearby.

The effectiveness of the arrangements needs to be reviewed in the light of experience. In particular, their adequacy should be carefully reviewed if there is evidence of children playing on, or near the site.





Site Induction, Training and Information Regulation 22(2)

Site induction, training and information are vital to securing health and safety on site. The Principal Contractor has to ensure, so far as is reasonably practical, that every worker has:

- A suitable induction; and
- Any further information and training needed for the particular work.

This does not mean that the Principal Contractor has to train everyone on the site - this will be the responsibility of individual Contractors. Inductions are a way of providing workers with specific information about the particular risks associated with the site and the arrangements that have been made for their control.

Induction is not intended to provide general health and safety training but it should include a site specific explanation of the following:

- a) Senior management commitment to health and safety;
- b) The outline of the project;
- c) The individual's immediate line manager and any other key personnel;
- d) Any site-specific health and safety risks, for example in relation to access, transport, site contamination, hazardous substances and manual handling;
- e) Control measures on the site, including:

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- f) Any site rules;
 - g) Any permit-to-work systems;
 - h) Traffic routes;
 - i) Security arrangements;
 - j) Hearing protection zones;
 - k) Arrangements for personal protective equipment, including what is needed, where to find it and how to use it;
 - l) Arrangements for housekeeping and materials storage;
 - m) Facilities available, including welfare facilities;
 - n) Emergency procedures, including fire precautions, the action to take in the event of a fire, escape routes, assembly points, responsible people and the safe use of any fire fighting equipment;
 - o) Arrangements for first aid;
 - p) Arrangements for reporting accidents and other incidents;
 - q) Details of any planned training, such as 'Tool Box Talks';
 - r) Arrangements for consulting and involving workers in health and safety, including the identity and role of any;
 - s) Appointed trade union safety representatives;
 - t) Representatives of employee safety;
 - u) Safety committees;
 - v) Information about the individual's responsibilities for health and safety.

9. Contractors explained

Contractors and those actually doing the construction work are most at risk of injury and ill health. They have a key role to play in co-operation with the Principal Contractor, in planning and managing the work to ensure that risks are properly controlled.

All Contractors (including utilities, specialist Contractors, Contractors nominated by the Client and the self-employed) have a part to play in ensuring that the site is a safe and healthy place to work. The key to this is the proper co-ordination of the work, underpinned by good communication and co-operation between all those involved.

Anyone who directly employs, engages construction workers or controls or manages construction work is a Contractor for the purposes of these Regulations. This includes companies that use their own workforce to do construction work on their own premises. The duties on Contractors apply whether the workers are employees or self-employed and to agency workers without distinction.

What Contractors must do on all projects: Regulations 4-6, and Part 4

For all projects Contractors must:

- a) Check Clients are aware of their duties;
- b) Satisfy themselves that they and anyone they employ or engage with are competent and adequately resourced;



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- c) Plan, manage and monitor their own work to make sure that workers under their control are safe from the start of their work on site;
 - d) Ensure that any Contractor who he appoints or engages to work on the project is informed of the minimum amount of time which will be allowed for them to plan and prepare before starting work on site;
 - e) Provide workers under their control (whether employed or self-employed) with any necessary information, including about relevant aspects of other Contractors' work, and site induction (where not provided by a Principal Contractor) which they need to work safely, to report problems or to respond appropriately in an emergency;
 - f) Ensure that any design work they do complies with regulation 11;
 - g) Comply with any requirements listed in Schedules 2 and Part 4 of these Regulations that apply to their work;
 - h) Co-operate with others and co-ordinate their work with others working on the project;
 - i) Ensure the workforce is properly consulted on matters affecting their health and safety; and
 - j) Obtain specialist advice (e.g. from a Structural Engineer or Occupational Hygienist) where necessary when planning high risk-work – e.g. alterations that could result in structural collapse or construction on contaminated land.

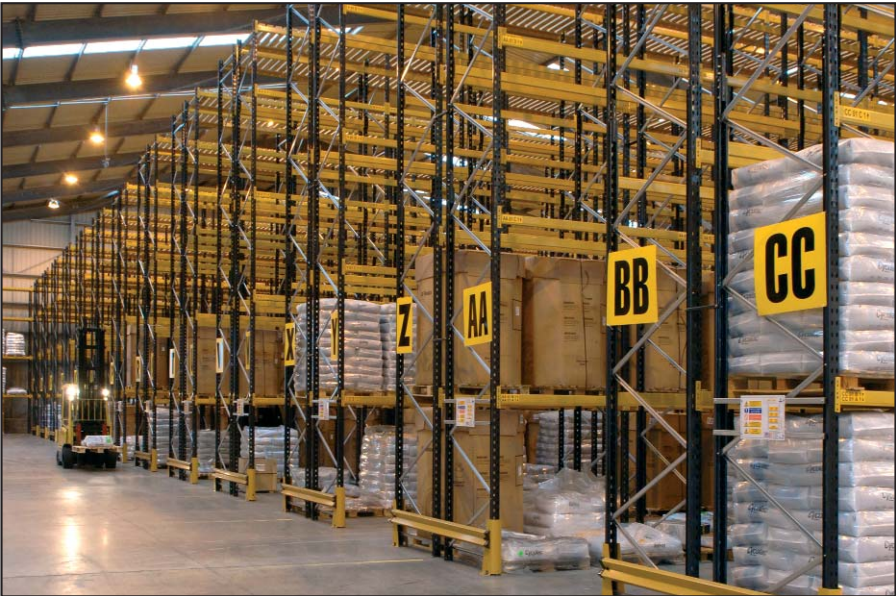
Planning and Managing construction work Regulation 13(2)

Contractors should always plan, manage, supervise and monitor their own work and that of their workers to ensure that it is carried out safely and that health risks are also addressed. Efforts invested in this should reflect the risk involved and the experience and track record of the workers involved.



Where Contractors identify unsafe practices, they must take appropriate action to ensure health and safety.

If one Contractor is overseeing the work for a domestic Client then they should ensure that the work of the various Contractors is properly co-ordinated, and that there is good co-operation and communication.



Site Induction, Information and Training

Regulation 13(3)

Contractors must not start work on a construction site until they have been provided with basic information. This should include information from the Client about any particular risks associated with the project (including information about existing structures where, these are to be demolished or structurally altered), and from Designers about any significant risks associated with the design.

Contractors must ensure, so far as is reasonably practical, that every worker has:

- A suitable induction; and
- Any further information and training needed for the particular work.

Induction

Regulation 13(3)(a)

Inductions are a way of providing workers with specific information about the particular risks associated with the site and the arrangements which have been implemented for their control. On non-notifiable sites, induction will need to be provided by the Contractor, or by arrangement with the Main Contractor on site.

Reporting incidents

Regulation 19(2) (c)

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) require the 'responsible person' to notify any death, reportable injury, disease or dangerous occurrence to the relevant enforcing authority. The responsible person is the employer or, for the self-employed, the Contractor or Principal Contractor.

Additional duties for Notifiable Projects:

In the case of notifiable projects, Contractors must also:

- a) Check that a CDM Co-ordinator has been appointed and HSE notified before they start work;
- b) Co-operate with the Principal Contractor, Co-ordinator and others working on the project or adjacent sites;
- c) Tell the Principal Contractor about risks to others created by their work;
- d) Provide details to the Principal Contractor of any Contractor whom he engages in connection with carrying out the work;
- e) Comply with any reasonable directions from the Principal Contractor, and with any relevant rules in the health and safety plan;
- f) Inform the Principal Contractor of any problems with the plan or risks identified during their work that have significant implications for the management of the project;
- g) Tell the Principal Contractor about accidents and dangerous occurrences;
- h) Provide information for the health and safety file.

Contractors must co-operate with the Principal Contractor, and assist them in the development of the construction phase plan and its implementation. Where Contractors identify shortcomings in the plan, the Contractor should inform the Principal Contractor.



On notifiable sites, Contractors must promptly inform the Principal Contractor about risks to other site workers or members of the public resulting from their work. This includes anything, for example, risk assessments and written systems of work, which might justify a review or update of the health and safety plan. Contractors must also provide details to the Principal Contractor of any other Contractors who they engage to assist in the carrying out of the work. Principal Contractors must be in a position to know who is working on the site.

Principal Contractors also have duties relating to the provision of information to Contractors, and they will not be in a position to discharge these duties if they are not told that such Contractors have been engaged.

Contractors must also provide information about RIDDOR incidents to Principal Contractors so that they can monitor compliance with health and safety law and, if necessary, review the arrangements for the management of health and safety.

On notifiable projects, site induction should be provided by the Principal Contractor, but the Contractor must co-operate with the Principal Contractor to ensure that an adequate site induction is provided.

Where Contractors are involved in design work, including for temporary works, they also have duties as Designers.



10. The Storage Equipment Specifier and CDM Regulations

Storage Equipment projects fall under the definition of construction work as defined by the CDM Regulations. This includes the dismantling of racking schemes.

The ‘Principal Contractor’s’ role is pivotal on any project and it is essential that the Client recognises the difference between being a ‘Principal Contractor’ and straightforward ‘Contractor’ on a job. Failure to do so can have serious implications.

It is crucial that at the tender stage of a project, the racking supplier’s role is clearly defined, so that should the racking company be awarded the contract, the potential for last minute confusion is minimised. There is plenty of anecdotal evidence of instances where racking suppliers have arrived on site, having assumed that a Principal Contractor has been appointed and because the Client has made the assumption that the Principal Contractor’s role will be taken on by the racking supplier, chaos ensues.

Such scenarios can lead to (often very expensive) consultants being brought in at the eleventh hour to take on the ‘Principal Contractor’ role.

For racking installation projects, the degree of detail as well as the time and effort required to comply with the legal duties imposed by CDM regulations will be in proportion to the nature, size and level of health and safety risks involved in the project. Therefore for small projects with minimal accident potential, companies are only required to take relatively simple, straightforward steps and few, if any, specialist skills will be needed.

However when it comes to larger racking projects that may involve several different Contractors – lighting engineers, sprinkler fitters as well as the racking installers – being on site at the same time, it is particularly essential that careful consideration is given to the CDM regulations from the outset of the project.

The risks of failing to demonstrate CDM competence can, in the event of an accident, have serious ramifications. From the design stage to the completion of a project, Clients, racking scheme Designers and Contractors must be aware of their CDM responsibilities.

Results of a recent Health and Safety Executive (HSE) survey revealed that many Designers involved with construction projects are unaware of their duties under CDM regulations.

In the racking industry, even less scheme Designers are aware of CDM regulations. Certainly a significant number of companies routinely fail to consider the practical detail of how the structures they design can be safely built.

Of course, when it comes to the erection of high bay racking/shelving schemes, it is inevitable that workers will have to work at height. For some Designers and Contractors a safety harness is seen as a panacea for protection against all work at height risks while the use of work platforms is rarely considered. Falls from height continue to be the most significant cause of serious accidents on construction sites in the UK and Designers have legal duties to avoid foreseeable risks to workers during construction and significantly, the ongoing maintenance of the finished structure. Under CDM, the Client has to be sure that the key health and safety issues have been considered at the design phase.

Moresecure offer a comprehensive support service from attending pre-tender meetings and discussing the clients responsibilities under the CDM regulations through to final installation and hand over. Moresecure also stress very clearly that our offers are always made as a "Contractor" - as defined in the Summary of Duties on page 8.

For any major racking installation project it is essential to use experienced sub-Contractors who are competent and aware of their health and safety responsibilities. On site health and safety inductions must be carried out and workers informed of hazards and risks. Moresecure fully supports the Storage Equipment Installers Registration Scheme (SEIRS) operated by SEMA, a recent initiative endorsed by the Health and Safety Executive to promote and develop nationally recognised health and safety standards and training in the storage equipment industry.

It is critically important that the Client is aware of his responsibilities when commencing any new project and it is incumbent upon the Principal Contractor to ensure that the Client knows this. In the event of an accident ignorance of the law will be no defence.



Appendix 1

The Health and Safety file

(Notifiable projects only)

The health and safety file should contain the information needed to allow future construction work, including cleaning, maintenance, alterations, refurbishment and demolition to be carried out safely. Information in the file should alert those carrying out such work to risks, and should help them to decide how to work safely.

The file should be useful to:

- Clients, who have a duty to provide information about their premises to those who carry out work there;
- Designers during the development of further designs or alterations;
- CDM Co-ordinators preparing for construction work;
- Principal Contractors and Contractors preparing to carry out or manage such work.

The file should form a key part of the information that the Client, or the Client's successor, is required to provide for future construction projects under regulation 12. The file should therefore be kept up-to-date after any relevant work or surveys.

The scope, structure and format for the file should be agreed between the Client and CDM Co-ordinator at the start of a project. There can be a separate file for each structure, one for an entire project or site, or one for a group of related structures. The file may be combined with the Building Regulations Log Book, or a maintenance manual providing that this does not result in the health and safety information being lost or buried. What matters is that people can find the information they need easily and that any differences between similar structures are clearly shown.

What you must do

Regulation 17

Clients, Designers, Principal Contractors, other Contractors and CDM Co-ordinators all have legal duties in respect of the health and safety file:

- CDM Co-ordinators must prepare, review, amend or add to the file as the project progresses, and give it to the Client at the end of project;
- Clients, Designers, Principal Contractors and other Contractors must supply the information necessary for compiling or updating the file;
- Clients must keep the file to assist with future construction work; and
- Everyone providing information should make sure that it is accurate, and provided promptly.

A file must be produced or updated (if one already exists) as part of all notifiable projects. For some projects, for example re-decoration using non-toxic materials, there may be nothing of substance to record. Only information likely to be significant for health and safety in future work need be included.

The Client should make sure that the CDM Co-ordinator compiles the file. In some cases, for example design and build contracts, it is more practical for the Principal Contractor to obtain the information needed for the file from the specialist Contractors. In these circumstances the Principal Contractor can assemble the information and give it to the CDM Co-ordinator as the work is completed.

It can be difficult to obtain information for the file after Designers or Contractors have completed their work. What is needed should be agreed in advance to ensure that the information is prepared and handed over in the required form and at the right time.

The contents of the health and safety file

Regulation 20

When putting together the Health and Safety file, you should consider including information about each of the following where they are relevant to the health and safety of any future construction work. The level of detail should allow the likely risks to be identified and addressed by those carrying out the work:

- a) A brief description of the work carried out;
- b) Any residual hazards which remain and how they have been dealt with (e.g. surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);
- c) Key structural Principles (e.g. bracing, sources of substantial stored energy – including pre - or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery;
- d) Hazardous materials used (e.g. lead paint; pesticides; special coatings which should not be burnt off etc);



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- e) Information regarding the removal or dismantling of installed plant and equipment (e.g. any special arrangements for lifting, order or other special instructions for dismantling etc);
 - f) Health and safety information about equipment provided for cleaning or maintaining the structure;
 - g) The nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;
 - h) Information and as-built drawings of the structure, its plant and equipment (e.g. the means of safe access to and from service voids, fire doors and compartmentalisation etc).

The file does not need to include things that will be of no help when planning future construction work, for example:

- a) The pre-construction information, or construction phase health and safety plan;
- b) Construction phase risk assessments, written systems of work and COSHH assessments;
- c) Details about the normal operation of the completed structure;
- d) Construction phase accident statistics;
- e) Details of all the Contractors and Designers involved in the project (though it may be useful to include details of the Principal Contractor and Planning Supervisor);
- f) Contractual documents;
- g) Information about structures, or parts of structures, that have been demolished – unless there are any implications for remaining or future structures, e.g. voids;
- h) Information contained in other documents, but relevant cross-references should be included.

Some of these items may be useful to the Client, or may be needed for purposes other than complying with the CDM regulations, but the regulations themselves do not require them to be included in the file. Including too much material may hide crucial information about risks.

Storing the file after the work is complete:
Regulation 17

To be useful the file needs to be kept up-to-date and retained for as long as it is relevant – normally the lifetime of the structure. It may be kept electronically (with suitable backup arrangements), on paper, on film, or any other durable form. Where Clients dispose of their entire interest in a structure, they should pass the file to the new owners and ensure that they are aware of the nature and purpose of the file. Where they sell part of a structure, any relevant information in the file should be passed or copied to the new owner.

If the Client leases out all or part of the structure, arrangements need to be made for the health and safety file to be made available to leaseholders. In some cases, the Client might transfer the file to the leaseholder during the lease period. In other cases, it may be better for the Client to keep the file, but tell leaseholders that it is available. If the leaseholder acts as a Client for future construction projects, the leaseholder and the original Client will need to make arrangements for the file to be made available to the new Co-ordinator.

A development may include roads and sewers that will be adopted by the local authority or water company. It is generally best to prepare separate files covering each Client's interests.



Appendix 2

Pre-construction Information

Pre-construction information when drawing up the pre-construction information, each of the following topics should be considered. Information should be included where the topic is relevant to the work proposed. The pre-construction information provides information for those bidding for or planning work, and for the development of the construction phase plan. The level of detail in the information should be proportionate to the risks involved in the project.

1. Description of project

(a) Project description and programme details including:

- Key dates (including planned start and finish of the construction phase); and
- The minimum time to be allowed between appointment of the Principal Contractor and instruction to commence work on site.

(b) Details of Client, Designers, CDM Co-ordinator and other consultants;

(c) Whether or not the structure will be used as a workplace (in which case, the finished design will need to take account of the relevant requirements of the Workplace (Health, Safety and Welfare) Regulations 1992);

(d) Extent and location of existing records and plans.

2. Client's considerations and management requirements:

(a) Arrangements for:

- Planning for and managing the construction work, including any health and safety goals for the project;
- Communication and liaison between Client and others;
- Security of the site;
- Welfare provision;

(b) Requirements relating to the health and safety of the Client's employees or customers or those involved in the project such as:

- Site hoarding requirements;
- Site transport arrangements or vehicle movement restrictions;
- Client permit-to-work systems;
- Fire precautions;
- Emergency procedures and means of escape;
- 'No-go' areas or other authorisation requirements for those involved in the project;
- Any areas the Client has designated as confined spaces;
- Smoking and parking restrictions;

3. Environmental restrictions and existing on-site risks

a) Safety hazards, including:

- Boundaries and access, including temporary access – e.g. narrow streets, lack of parking, turning or storage space;
- Any restrictions on deliveries or waste collection or storage;
- Adjacent land uses – e.g. schools, railway lines or busy roads;
- Existing storage of hazardous materials;
- Location of existing services particularly those that are concealed – water, electricity, gas, etc.;
- Ground conditions, underground structures or water courses where this might affect the safe use of plant, e.g. cranes, or the safety of groundworks;
- Information about existing structures – stability, structural form, fragile or hazardous materials, anchorage points for fall arrest systems (particularly where demolition is involved);
- Previous structural modifications, including weakening or strengthening of the structure (particularly where demolition is involved);
- Fire damage, ground shrinkage, movement or poor maintenance which may have adversely affected the structure;
- Any difficulties relating to plant and equipment in the premises, such as overhead gantries whose height restricts access;
- Health and safety information contained in earlier design, construction or ‘as-built’ drawings, such as details of pre-stressed or post-tensioned structures.

b) Health hazards, including:

- Asbestos, including results of surveys (particularly where demolition is involved);
- Existing storage of hazardous materials;
- Contaminated land, including results of surveys;
- Existing structures containing hazardous materials;
- Health risks arising from Client’s activities.

4. Significant design and construction hazards

- a) Significant design assumptions and suggested work methods, sequences or other control measures;
- b) Arrangements for co-ordination of on-going design work and handling design changes;
- c) Information on significant risks identified during design;
- d) Materials requiring particular precautions.

5. The health and safety file

Description of its format and any conditions relating to its content.

Appendix 3

The Construction Phase Plan

When drawing up the construction phase plan you should consider each of the following topics. Information should be included in the plan where the topic is relevant to the work proposed.

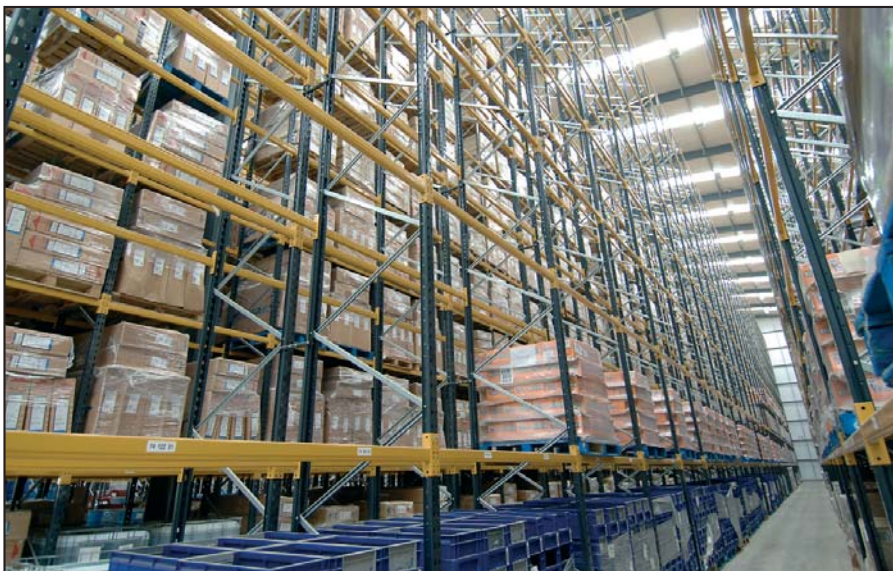
The plan sets out how health and safety is to be managed during the construction phase. The level of detail should be proportionate to the risks involved in the project.

1. Description of project

- a) Project description and programme details including any key dates;
- b) Details of Client, CDM Co-ordinator, Designers, Principal Contractor and other consultants;
- c) Extent and location of existing records and plans that are relevant to health and safety on site, including information about existing structures when appropriate.

2. Management of the work

- a) Management structure and responsibilities;
- b) Health and safety goals for the project and arrangements for monitoring and review of health and safety performance;



c) Arrangements for:

- Regular liaison between parties on site;
- Consultation with the workforce;
- The exchange of design information between the Client, Designers, CDM Co-ordinator and Contractors on site;
- Handling design changes during the project;
- The selection and control of Contractors;
- The exchange of health and safety information between Contractors;
- Site security
- Site induction;
- On site training;
- Welfare facilities and first aid
- The reporting and investigation of accidents and incidents including near misses;
- The production and approval of risk assessments and written systems of work;

d) Site rules;

e) Fire and emergency procedures.

3. Arrangements for controlling significant site risks

a) Safety risks, including:

- Delivery and removal of materials (including waste) and work equipment taking account of any risks to the public, e.g. during access to or egress from the site;
- Dealing with services - water, electricity and gas, including overhead powerlines and temporary electrical installations;
- Accommodating adjacent land use;
- Stability of structures whilst carrying out construction work, including temporary structures and existing unstable structures;
- Preventing falls;
- Work with or near fragile materials;
- Control of lifting operations;
- The maintenance of plant equipment;



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- Work on excavations and work where there are poor ground conditions;
 - Work on wells, underground earthworks and tunnels;
 - Work on or near water where there is a risk of drowning;
 - Work involving diving;
 - Work in a caisson or compressed air working;
 - Work involving explosives;
 - Traffic routes and segregation of vehicles and pedestrians;
 - Storage of materials (particularly hazardous materials) and work equipment;
 - Any other significant safety risks.

b) Health risks, including:

- The removal of asbestos;
- Dealing with contaminated land;
- Manual handling;
- Use of hazardous substances, particularly where there is a need for health monitoring;
- Reducing noise and vibration;
- Work with ionising radiation;
- Any other significant health risks.

4. The health and safety file

- a) Layout and format;
- b) Arrangements for the collection and gathering of information;
- c) Storage of information and whether it can be reused, recycled or needs to be disposed of.

During construction the plan will be updated to map what happens against what was expected to happen, allowing lessons to be learnt for future projects.



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