Developing guidelines for the selection of designers and contractors under the Construction (Design and Management) Regulations 1994

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This report describes a study into the application of Regulations 8 & 9 of the Construction (Design and Management) Regulations 1994, and of Regulations 4 and 7 of the proposed Construction (Design and Management) Regulations 2006. These regulations require contractors, designers and co-ordinators to be competent and adequately resourced. The study collates background data, details of existing competency assessment schemes, and the views of industry. It proposes a standardised approach so as to avoid uncertainty in the definition of competence and resource, and also promotes a means of avoiding unnecessary repetition in requests for demonstration of competence.

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EXECUTIVE SUMMARY

Pre-planned, well designed projects, where inherently safe processes have been chosen, which are carried out by companies known to be competent, with trained workforces, will be safe: they will also be good, predictable projects.

Accelerating Change: a report by the Strategic Forum

We require all who work in the industry to be competent through education, training, experience and continuous development.

Respect for People: Strategic Forum 2005

The construction industry plays an important role in the UK’s well being. Its 9% contribution to GDP underplays its real importance as this relates to the very backbone of the country-our infrastructure and built environment. To deliver this responsibility, to time, quality and budget, whilst ensuring the well being of those who work in the industry, and those who subsequently operate, maintain and eventually decommission the facility, requires competent organisations, employing sufficient competent persons.

Unlike many other industries, construction remains labour intensive. It employs around 2 million. It is a diverse industry involving both the major procurers of facilities –government being the largest client- but also many clients who do not have any knowledge of construction and who may only procure one project in their lifetime.

The need for competency and adequate resource to be deployed, in order to deliver safe and good projects, is self evident. Unfortunately the industry has not performed well in the interpretation of this requirement since it became explicit as a consequence of the introduction of the Construction (Design and Management) Regulations (CDM) in 1995. The overwhelming image and complaint is one of unnecessary bureaucracy, procedures and paperwork, which add little value. Many organisations are keen to improve, but need clearer guidance and certainty, in particular to avoid:

- Variations in data requested
- Repeat requests

for demonstration of competency.

For SMEs\(^1\) in particular, the concern also is that those who do invest time and money in people and management processes should not be disadvantaged by those who do not do this, and yet are permitted to compete.

The adequacy of competence and resource cannot be precisely determined. The best one can set out to do is to set some benchmarks, guidelines and requirements which, generally speaking and with sensible judgement, will ensure that those which satisfy them will be of a suitable minimum standard. Although this approach may be simplistic it will create the certainty, efficiency and cost effectiveness that the construction industry needs. It is considered a good business model. As the brief to this study indicated, the intent is to ‘eliminate the incompetent, not to identify the most competent’.

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\(^1\) Small and medium sized enterprises
Competency is considered in this report at two levels: the corporate/organisational level, applicable to any size of business (differing only in the manner in which it is implemented and demonstrated), and at the individual level.

Although ‘competency’ is a key aspect of current health and safety legislation (and good business principles) the means by which it may be demonstrated is often not immediately clear to those who either have to demonstrate it, or to those who have an obligation to check others. This has led to the variety of approaches adopted and the tendency to ‘ask everything’ as a protective measure. This report suggests a standardised definition of corporate competence constructed around ‘Core Criteria’. These criteria are designed to demand no more than the law requires, and to be applicable to organisations of any size. The key however is that the evidence required will reflect the size of business—proportionality is the watchword. The Core Criteria are supplemented by specific checks on the ability to manage the anticipated risks: this will usually be achieved via a review of recent projects.

The use of the Core Criteria means that the ubiquitous ‘competency questionnaire’ should disappear; one client should ask for the same data as another.

The industry has already developed a number of ‘assessment’ or ‘qualifying’ schemes (promoted by both public and private sectors) as means of avoiding one or both of the pitfalls listed under the two bullet points above; these are to be welcomed and if they can move to support the Core Criteria, and provide other essential characteristics to demonstrate robustness in their manner of operation, they have the potential for creating a significant improvement in this area.

The use of these schemes is not intended to prevent individual engagers undertaking assessments if they so choose; it will however allow major savings in time and cost for those who are willing to accept membership of an accredited assessment scheme as a suitable and compliant benchmark subject only to checking project specific capabilities.

The industry also needs a simple means of demonstrating individual competency. Given the project led nature of construction this must be transportable between employers. Any such system will have its critics but it is contended that these can be met by dialogue and persuasion; the important first step is to adopt a model on which to proceed. Such a model must test the three essential components of individual competency ie technical knowledge of the tasks to be performed, knowledge of health and safety risk management, and experience and ability.

Accordingly it is suggested that a card system (CSCS\(^2\) or equivalent), is used for ‘Contractors’. It is not intended to exclude any particular competent card system into which much time and investment may have been made. In reality however CSCS appears to be the dominant system. As a first step it is hoped that other cards will affiliate to CSCS which then can act as an umbrella, thus presenting clients with a simple understandable face to the industry.

For Designers, it is concluded that competency is best determined through membership of a ‘design’ related institution, supplemented by a test to demonstrate personal safety knowledge (for example the CSCS health and safety test). Award of a ‘card’ to signify this overall achievement will provide site gate evidence.

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\(^2\) Construction Skills Certification Scheme
In the case of the Co-ordinator, there is currently no accepted pathway in respect of competency. It is also the case that the existing ‘planning supervisor’ is not well regarded by many and is often seen as ‘incompetent’ (an unfair burden on those who discharge the role with skill). With this in mind, and recognising that there is an opportunity to correct these perceptions, it is concluded that individuals undertaking the role of Co-ordinator shall belong to a register meeting stipulated requirements (potential registers already exist) and to take the CSCS health and safety test in respect of personal safety.

However it is open to engagers to undertake bespoke competency assessments for Contractors and Designers if they so wish, but these should nonetheless satisfy the three essential elements mentioned above.

Notwithstanding these conclusions, card schemes (and specifically CSCS) and professional routes currently have significant issues that need to be resolved within stated time-spans if these are to prove viable long term solutions. It is essential that any pathway to competency has the confidence of the industry.

If this approach is accepted it infers we will be moving towards an industry where the possession of a card is required for all those involved. The Author considers this to be sensible and to have wide ranging long term benefits, providing the schemes are operated for the good of the industry in a transparent manner.

Proposals are made, in the case of projects with a construction phase less than 30 days, and where there will be no Co-ordinator to assist the Client assess the competency of the Contractors and Designers.

Ensuring competency is one part of the equation. The remaining thread relates to the quantum of the resource- usually considered to be the time and number of people made available for a task or project. A recommendation of this report is that other aspects of resource currently mentioned by the ACOP ie equipment, technical back-up and the like, should be considered as part of the check on competency. Resource checks will then relate solely to people and the time they allocate to the project.

Assessing the requisite number of persons and time allocation to construction projects is not an easy task. It is particularly difficult for those not directly involved in the design or construction process such as Clients and their advisors (likely to be the Co-ordinator in the future). It is considered advantageous to avoid the need for judgements on something for which an accurate answer is problematic, specifically so in view of the contractual difficulties of doing so and the equal problems of enforcement in these circumstances. The report therefore recommends that checks on resource are limited to ensuring:

- key personnel of the appropriate individual competence are present,
- that key project, and contract periods are satisfactory, including design, mobilisation, and construction phases.

It is recommended that these checks apply to any party engaging another, ie all along the supply chain.

For Co-ordinators, reflecting again the fact that the Client is likely to be unable to verify such information, it is proposed that the activities anticipated under each of the functions required in Regulation 13 is scheduled, discussed with the Client as a point of information and as a record should a review of resource allocation be required in the future.
The report also recommends that training for Designers and Co-ordinators in particular should be regularised by the provision of benchmarks for the syllabus and outputs of essential training, and that those that deliver the training should be assessed for their competency.

The review of CDM is an opportunity the industry cannot afford to miss. It is hoped that the recommendations made in this report will engender debate and lead to a substantial improvement in the manner in which projects are dealt with in respect of ‘competency and resource’. The Author believes that in time this will lead to a raising of standards, the exclusion of the incompetent, and hence a real contribution towards the improvement in the ill health and accident record of the industry. It should also bring associated business benefits and demonstrate respect for people. Nonetheless, these changes will require a parallel change in culture to be fully effective.
1 INTRODUCTION

1.1 THE BRIEF

This report is the result of a research commission awarded by HSE in August 2004 and extended in September 2005; its purpose is to contribute to the overall review of the Construction (Design and Management) Regulations 1994. The stated aim of the commission is to:

- Establish good practice in the selection of Contractors, Designers and Co-ordinators.
- Set out one or more techniques for such selection which provide reasonable assurance whilst minimising bureaucracy and avoiding unnecessary paperwork.

The brief emphasised that:

- HSE was seeking to ‘eliminate the incompetent’ not necessarily ‘identify the most competent.’
- suggested techniques must be appropriate for small and medium sized projects and be designed to integrate with clients’ general selection procedures.

1.2 OVERVIEW

The consideration of competency and resource is usually seen and judged against the narrow focus of the requirements of Regulations 8 and 9 of the CDM Regulations. However this issue has taken on a much more strategic relevance in recent years and is a matter of debate and action across many fields of activity. No longer is there a presumption that competency automatically flows in connection with membership of, or statements from a recognised body, or from historical positions of trust. The medical profession has felt this wind of change more than most perhaps, and has had to consider significant changes to its modus operandi as a consequence.

This wind of change demands transparency and accountability; Turnbull [ICA1999] has brought this about in Boardrooms in respect of risk management. HSE has pressed for clarity of an organisation’s safety record in annual reports. Pockets of change have occurred in the construction industry itself (eg the register of competent structural engineers in respect of certification of compliance with Building Regulations in Scotland\(^3\) and the EAS scheme for electricians certifying domestic work to Part P of the Building Regulations\(^4\)), but these are isolated.

For those employing others in connection with construction projects (the construction phase of which are dangerous environments), or where their actions may affect others that follow during the lifetime of the facility, it is only right and proper that adequate competency and resource is allocated to the task. In order to do this there must be some simple, tangible way in which this may be judged. To date, too few perhaps have asked the question, and for those that have, they have often suffered from the lack of a reasonable yardstick against which to make a judgement. In addition the industry has been hampered by the use of generic questionnaires of unnecessary length and detail, which vary from client to client and which have been raised repetitively. This has created a bureaucracy which is resented and often adds little value.

\(^3\) [www.ser-ltd.com]
\(^4\) [www.iee.org.uk]
If we are to convince clients and the industry that these Regulations (currently 8&9) are worthwhile, we have to move away from the bureaucracy of the past, and demonstrate that some added value will accrue. It must also be made apparent to those organisations which do invest in order to be competent and adequately resourced, that those who are clearly not competent or adequately resourced will not be able to compete unfairly. To date, some 12 successful prosecutions have been brought under Regulation 8, and 2 successful prosecutions have been brought under Regulation 9.5

Hence we seek a proportionate approach, reflecting the wide size range of organisations6 operating in the construction industry and the wide variation in risk encountered. As noted above, it is also suggested that we also seek an approach which will allow those that are incompetent and inadequately resourced to be readily identified. The methodology adopted, and the standards used must be transparent and credible; this has not always been the case in the past and even now some schemes suffer from adverse comment.7

It should be recognised however that any proposal for a standardised approach to 'competency and resource' can only address a limited number of attributes so that there is a reasonable chance that those organisations and individuals passing these ‘tests’ may be assumed by the appointing party to be competent and resourced at a basic level. The exercise requires judgement exercised in good faith; there is no absolute answer. This approach needs to be complemented by a similar recognition by the enforcing authorities in the event of an alleged offence. In this fashion industry will approach this matter with greater confidence. The obligation should always remain on those organisations which are engaged to ensure that in the particular circumstances of their engagement activity they are, and remain, competent and resourced.

1.3 THE INDUSTRY

The CDM regulations, stemming from the Health and Safety at Work etc Act, but originating from a European Union Directive, are concerned only with the protection of human life. Hence the formal approach to this study mirrors this fact. However, as will be seen from this Introduction, industry needs competency on a wider front, and competency with adequate resource in the health and safety sense will bring broader benefits than those imagined by the drafters of the Regulations. It is the Author’s view that ‘health and safety’ competence must integrate with, and be seen as part of the technical competency of an individual or organisation, and vice versa.

The construction industry is diverse in the extreme; it has many sectors- some bearing little relationship to others; it has a workforce with strong historical characteristics eg male, transient and project based. Poor training and ill-defined career paths have been the norm in many areas. Skill shortages, although the result of a number of factors, are no doubt heavily influenced by the image these shortcomings present to potential new entrants and in the retention of the existing workforce. These matters are not limited to the trades and general operatives. A shortfall in professional engineers in particular has been identified, and although career paths are well established, initiatives by the HSE have identified poor training provision here also [HSE 2004] notwithstanding an improvement from the previous year.

Whereas many other industries have significantly reduced their need for labour, construction on the whole remains labour intensive. Other changes undergone by comparable industries, as a result of competition in this country and from world-wide influences, have not yet brought

5 obtained from HSE prosecutions database
693% of businesses in construction employ less than 14 people. 15 design companies (out of 23500) employ more than 1000 civil and structural staff (NCE Consultants File). See also Chapter 4 and http://www.dti.gov.uk/construction/stats/constat2004.pdf
7 See Sunday Telegraph Review p19 April 13 2003
similar step changes in our industry. In addition, much of the construction industry’s labour is self employed which acts as a severe constraint on improvements to culture and training in particular.

There are of course exceptions to this picture but these are not thought to be sufficient to change the overall colour of the backcloth. Superimposed upon this scenario is the fact that construction is one of the most dangerous industries in terms of accident and ill health records. [HSE 2005]

It was against this background that the two seminal reports of the post-war era proposed fundamental change.

Constructing the Team
Sir Michael Latham, in his report, which set the ball rolling in respect of changing the face of the industry, considered ‘Contractors and Qualification /Pre-qualification’ in some detail (para 6.19-6.24). Although much of the text is now dated as procedures have changed, the basic thrust of the argument continues to hold true ie ‘(such) duplication of effort (ie many uncoordinated qualification schemes) is a wasteful burden on the construction industry’. His recommendation, that all public sector contractors be registered on one central register, has not been realised however, although Constructionline, which was created to achieve this aim, is the largest qualification scheme in existence (See Appendix 7).

Rethinking Construction
In 1998 Sir John Egan’s task group published their report which led to the formation of the Movement for Innovation and the Construction Best Practice Programme, now subsumed under the umbrella organisation of Constructing Excellence. Sir John’s report placed emphasis on a ‘quality driven agenda’, and ‘commitment to people’. These are very much allied to competency issues, and support the need for such standards in order to improve the industry generally. The argument that good health and safety risk management is synonymous with the Egan agenda was made at an early stage [Carpenter 1999].

In the Author’s view we will not achieve these aspirations unless we radically change the manner in which the industry operates, and the most important of these changes is considered to be the adoption of the 3Rs – relating to recruitment, retention and respect for people. Success in these three areas will be achieved by a multitude of approaches but one key driver to success is to insist on benchmarked competency and adequate resource within the industry as a means of driving up standards and changing cultures within organisations. This argument has been boosted as a consequence of the Safety Summit held in February 2005 which put ‘respect for people’ centre stage. This is described in Chapter 5.

It is a moot point whether we argue for competence and adequate resource in order to reduce the likelihood of ill health and accidents- and argue this via the CDM Regulations- or whether we pursue a more competent workforce together with better resourced and managed projects, in order to improve the efficiency of the industry and attract a quality workforce. The end result should be the same- win-win on all counts.

The argument for doing better has recently been strengthened by the National Audit Office report ‘Improving Public Services through Better Construction - Case Studies’ which emphasised the benefits which the Office for Government Commerce’s (OGC’s) Policy Guidance Note 10 (PG10) has brought to the control of cost and time of government projects.

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9 The report of the construction task force DETR 1998
10 www.constructingexcellence.org.uk
This is an excellent example of how health and safety management is not only central to project risk control, but can bring wider benefit. This is the ‘business case’ approach which is discussed in Section 1.8. PG 10 places significant emphasis on the need for adequate competency and resource (Appendix 6).

Although the originating European Directive that led to the CDM Regulations did not include a specific requirement in relation to competency and resource, it did require account to be taken of the general principles of prevention concerning safety and health, which are referred to in the Framework Directive; and compliance with its requirements on ensuring adequate information, instruction and training. Its implementation strove to achieve the overall objectives of the Directive, while at the same time encapsulating principles and requirements on competence already enshrined in domestic UK law. Subsequent research (as noted in Appendix 4), and other authoritative statements, clearly give support to this (Appendix 5 and 6). As will be seen from the enquiries made for this study no significant voice was raised in favour of deleting this aspect of the regulations. Hence the study has been able to concentrate on more profitable avenues of enquiry and debate.

1.4 THE ROLES

The formal position of ‘planning supervisor’ (which is replaced in CDM\textsuperscript{2006} by the Coordinator) is a product of legislation rather than tradition. The formal role has had a life of some 10 years in an industry where ‘Contractor’ and ‘Designer’ have been in existence, in broadly their current form, for two hundred years or more.

Although the formal statutory position of planning supervisor has had a short existence, a number of the functions allocated to the role have always been an essential part of the project team activities eg co-ordination of health and safety risk issues. Others, for example ensuring that a Health and Safety File is produced, have been created with the planning supervisor role.

When CDM was first introduced in 1995 initial caution and uncertainty led to substantial fees being charged by those offering the service of planning supervisor, and it led to many Clients demanding clear evidence that the ‘planning supervisor’ was indeed competent and adequately resourced. It is suspected however that they, and their advisors, did not always know what constituted an acceptable standard; the industry was after all in new territory.

As time went by however, and in the Author’s experience, a number of characteristics developed:

- Many Clients ceased to interrogate potential planning supervisors on their competency or resources, or they relied on generic questionnaires.
- A wide range of organisations (and individuals) presented themselves as capable of carrying out the role.
- The fees charged reduced significantly; often to unrealistic levels.
- The level of service provided in many cases added no value to the project and consisted in the main of moving large quantities of unwanted and unused paperwork around the project team.
- Late appointment of planning supervisors and a low project profile was commonly reported.

This resumé is anecdotal but is considered by the Author to be a realistic summary for a significant part of the industry. The role is often not valued by Clients or the rest of the project team. There are of course many examples of excellence where the planning supervisor has added significant value to the project and gained the team’s respect but this is not the majority view (See also answer to Q15 Appendix 4).
1.5 GOVERNMENT AS A DRIVER

The government procures some 40% or more of all construction work in the UK making it by far the biggest and most influential client.

Unfortunately, government- in its myriad of forms- does not always actively support those initiatives that are designed to improve the industry, or indeed that central government has itself initiated\(^\text{11}\). A recent report in respect of local government procurement [ODPM 2003] however, stated that:

*We also support the development of common pre-qualification standards particularly in the areas of health and safety, equal opportunities and HR practices. The Employer’s Organisation will lead on the standardisation of pre-qualification procedures in the HR area.*

There is no doubt in the Author’s view that government could make a significant impact, through public sector procurement, if it enthusiastically supported the drive to simplify and raise the effectiveness of competency and resource assessment. A paper produced by the Cabinet Office [Arnold 2003] set out to canvas support for the mutual recognition between various ‘competency’ schemes. No progress has been made as there was a lack of support for endorsing anything other than Constructionline, the scheme promoted by DTi (See Appendix 7 for details).

It has also become apparent that, as a consequence of government departments’ differing priorities, less consideration is sometimes given to health and safety issues than to other Departmental priorities -particularly where the lead is regarded as resting elsewhere. It is only HSE that has health and safety issues as its sole raison d’être. This situation produces identifiable tensions between the various arms of government.

The Common Minimum Standards, issued via the Office for Government Commerce present a new opportunity for the public sector to assist in raising standards generally (Section 4.13).

1.6 REGULATION AND RECOGNITION

Some significant thought has been directed at how the Regulators (HSE and the Local Authorities) might best deploy their resources [Hampton 2004, HSC2004a, b]. One aspect that is recognised in these documents is the relevance of deploying resources where they may bring the most benefit, ie avoiding areas where ‘the risk is of low significance, well understood and properly managed.’ This opens the door to the possibility of making a direct connection between validated competence and regulatory imposition.

1.7 CONSULTATIVE DOCUMENT (Revised CDM Regulations)

In parallel with this study the HSE has been conducting a thorough review of the 1994 CDM Regulations. The Consultative Document, which includes the draft revised regulations and the associated guidance, was published in April 2005. The proposals retain the requirement for competency and resource and the document is commented on in Chapter 3. The proposed regulations are referred to in this report as CDM\(^\text{2006}\) to distinguish them from the current regulations, CDM.

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\(^{11}\) A point accepted by the Minister (Jane Kennedy) at the Safety Summit in February 2005
1.8 THE BUSINESS CASE

In the Author’s view the business advantages of ‘good health and safety management’ generally, and adequacy of ‘competency and resource’ specifically, has lacked understanding and been underplayed. The case has to compete against strong commercial pressures for ‘minimisation’. Constructing the Team outlined some significant wastage statistics. These would be significantly improved with better competence and resource; waste costs money both directly and indirectly.

The essence of good health and safety risk management is pre-planning; taking steps to identify problems (hazards) before they arise. This principle applies to business as a whole and hence the use of competent organisations, and individuals, with adequate resource will allow this to be achieved with all round benefit [Carpenter 2003].

HSE has recently set out some actual examples of business benefit attained by organisations on http://www.hse.gov.uk/betterbusiness/business_benefits.htm.

1.9 CURRENT ACTIVITIES AND CUT-OFF

This research coincides with a period of intense activity by the industry in this specific area. During 2004/05 a number of competency schemes have been changed or updated. New ones have been created. The Author has attempted to keep abreast of this activity, and in many cases the industry has gone out of its way to keep this project informed. Notwithstanding, the report does not reflect new development after July 2005 unless specifically noted.

1.10 DEFINITION: CONTRACTORS AND DESIGNERS

In order to avoid confusion, the definition of Contractor and Designer in this report is as set out in the CDM Regulations ie it is a functional definition. Thus a ‘Designer’ may be found anywhere in the supply chain and is determined not by the organisation, but by the role undertaken.

1.11 THIS REPORT

The report aims to set the brief in context by documenting the broad background and influencing features.

The legal provisions for competency and resource are outlined in Chapter 2 and HSE guidance and advice with regard to this topic are described in Chapter 3. Background information is provided in Chapter 4. The range of existing formal ‘competency schemes’, and training provisions for the industry, is outlined in Chapter 5, supported by more detailed analysis in Appendix 7.

Chapters 6 and 7 describe the data gathering methodology and outputs respectively. Chapters 8 and 9 record the conclusions relating to ‘competence’ and ‘resource’ respectively, and Chapters 10 and 11 set out recommendations in respect of competence and resource respectively, supported by Appendices 10 and 11.

The Appendices include a range of background data (Appendices 1-6), details of existing schemes (Appendix 7), summary of discussions with industry organisations (Appendix 8), core training requirements for passports (Appendix 9), core elements of competency and resource relating to the recommendations of this report (Appendix 10) and an example schedule of Co-ordinator activities (Appendix 11).
The Author hopes that this report will act as a stimulus for debate on this important subject, determine the outline of an improved means of implementation, and that it will also act as a useful background document on the subject generally. The fact remains however that legislation alone cannot deliver improvement. Any solution will require the support of the industry and a cultural change.
2. THE CURRENT STATUTORY AND DUTY OF CARE PROVISIONS

This Chapter reviews the statutory and civil requirements for competency in the workplace as a means of placing ‘competency and resource’ into context.

2.1 HEALTH AND SAFETY AT WORK ETC ACT. 1974

Although the Act does not specifically mention ‘competency and resource’ it is clear that to comply with:

Section 2 (employers duty to employees),
Section 3 (duty to those affected by the undertaking), and
Section 7 (duty to have regard for personal safety and that of one’s workmates in particular),

employers, the self-employed and individuals should have the knowledge, experience and skills to comply ie they should be competent, and have the necessary resource in terms of time, equipment, and the like. S2 includes a requirement on employers to ‘provide such information, instruction, training and supervision as is necessary...’

2.2 MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999

There are a number of regulations within this core set that relate to competence ie

Regulation 3 assessment of risk
13 capabilities of individuals
14 employees’ duties
15 temporary workers

Further to the above, the Regulations require all employers to have access to ‘competent advice’ (regulation 7). The preference in this respect is for this advice to come from within the organisation, where that skill is available.

Hence the clear thread running through this cornerstone set of Regulations is that competence (and by inference adequate resource) is key to good health and safety management. In addition, the guidance accompanying the regulations 12 provides the following:

‘51 Competence in the sense it is used in these regulations does not necessarily depend on the possession of particular skills or qualifications. Simple situations may require only the following:
   a) an understanding of relevant current best practice;
   b) an awareness of the limitations of one’s own experience and knowledge and
c) the willingness and ability to supplement existing experience and knowledge, when necessary by obtaining external help and advice.

52 More complicated situations will require the competent assistant 13 to have a higher level of knowledge and experience. More complex or highly technical situations will call for specific applied knowledge and skills which can be offered by appropriately qualified specialists. ....’

12 Management of health safety and welfare at work regulations ACOP L21 HSE Books
13 This is the source of competent advice that should be available to all employers
2.3 TEMPORARY OR MOBILE CONSTRUCTION SITES DIRECTIVE (92/57/EEC)

This Directive which led, in the UK, to the CDM Regulations 1994, has no requirement for assessment of competency or resources. The requirements were included therefore by the GB sponsors (HSE) at the time when the CDM regulations were first drafted.

2.4 CDM REGULATIONS 1994

The requirements of the CDM regulations are given in Appendix B, and relate to regulations 8 and 9.

To summarise,

1. Those employing Contractors, Designers or planning supervisors must ensure that they are competent and adequately resourced.
2. This requirement does not apply (to client or others) if the work is related to a domestic client.

The Approved Code of Practice and Guidance [HSE 2001] covers this topic in paras 191 to 200. The advice is all ‘guidance’ and hence does not have the status of the Approved Code of Practice. The text gives background advice on the principles and on how to assess for competence and resource. Relevant extracts and the author’s commentary are given in Appendix 3.

It is worth reiterating one specific piece of advice viz: ‘Unnecessary bureaucracy obscures the real issues and diverts effort from them.’

2.5 CONSTRUCTION (HEALTH, SAFETY AND WELFARE) REGULATIONS 1996

The Construction (Health, Safety and Welfare) Regulations 1996- due to be combined with the CDM regulations under CDM 2006- clearly state the requirement regarding training, knowledge and experience:

Any person who carries out any activity involving construction work where training, technical knowledge or experience is necessary to reduce the risks of injury to any person shall possess such training, knowledge or experience, or be under such degree of supervision by a person having such training, knowledge or experience, as may be appropriate having regard to the nature of the activity. (Regulation 28).

2.6 OTHER REGULATIONS AND GUIDANCE

There are other sets of regulations eg Control of Substances Hazardous to Health (COSHH) that specifically mention or require competent persons. COSHH requires a competent person to carry out the assessment of risk, defining it as:

- Having adequate knowledge, training and expertise in understanding hazard and risk,
- Knowing how the work activity uses or produces substances hazardous to health (clearly analogous to the design and construction activities of the construction industry),
- Having the ability and the authority to collate all the necessary information,
• Having the knowledge, skills and experience to make the right decisions about risks and the precautions that are needed.

The publication ‘Developing and maintaining staff competence’ gives some useful information on the subject. Although written for the railways, and reflecting specific legislation applicable to safety critical work, there are nonetheless some useful pointers within this document.

Competence is defined as ‘the ability to undertake responsibilities and to perform activities to a recognised standard on a regular basis. Competence is a combination of practical and thinking skills, experience and knowledge, and may include a willingness to undertake work activities in accordance with agreed standards, rules and procedures.’

2.7 QUARRIES REGULATIONS 1999

Because of the high risks associated with the operation of quarries, they also have their own Regulations and ACOP. These are pertinent to this study in respect of the manner in which competence is treated.

Competence is defined in Regulation 2 as ‘competence in relation to a person means a person with sufficient training, experience, knowledge and other qualities to enable him properly undertake the duties assigned to him.’

The person in charge (the operator) has to ensure that no person undertakes any work unless they are competent, or working under the control of someone who is competent to give instruction in and to supervise the work. In addition, it is necessary that ‘a sufficient number of persons with the requisite competence to perform tasks assigned to them are present’ (Regulation 9).

The ‘Guidance’ that accompanies this Regulation is worth noting:

71 Everyone working at the quarry must be competent for the work they are required to do. They, and their managers, need to know the limits of their competence. People working at a quarry must not undertake any work for which they are not competent—except under the careful instruction and supervision of a competent instructor.

72 Competence is defined in Regulation 2. It also helps to keep in mind the NVQ definition of competence: ‘the ability to apply knowledge, understanding, practical and thinking skills to achieve effective performance to the standards required in employment. This involves solving problems and being sufficiently flexible to meet changing demands.’

73 Everyone who works at a quarry must be properly trained and have appropriate experience and knowledge to enable them to do their work safely. A few will need other qualities such as management or interpersonal skills, or formal qualifications, for example geotechnical specialists, shotfirers, and explosives supervisors. Management training must, where appropriate, include training in safety management, risk assessment and developing and using safe systems of work.

74 The risk assessments and occupational standards* should help to determine the health and safety competencies needed for particular jobs. By comparing the competencies needed with those which people already have, managers can determine what additional skills are required, and how these can be achieved, for example through training and coaching.

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* Railway Safety Principles and Guidance Part 3 Section A (published by HSE), relating to safety critical work.
Care should be taken when using existing workers for training. Such training can be useful, but may lead to bad practices and attitudes being passed on to a new generation of workers, for example concerning the use of personal protective equipment.

Health and safety training is an important way of developing competencies and helps to encourage safe working practices. It can contribute positively to the health and safety culture, and is needed at all levels, including top management. (continues)

A person’s competence will decline if skills are not used regularly. Training may therefore need to be repeated periodically to ensure continuity of competence in the skills that are not often used.

Information from personal performance, health and safety monitoring, accident investigation and near-miss incidents can help identify a need for additional training.

In the quoted paragraphs, the word quarry has been underlined by the Author. It is suggested that these paragraphs continue to make broad sense if this word is replaced either by design office or construction site.

The ‘*’ in para 74 refers, in the original text, to EPIC (the national training organisation for the extractive and mineral processing industries). This has developed such standards, in collaboration with the industry and HSE. This concept is explored further in Chapter 10.

2.8 SAFETY HEALTH AND WELFARE AT WORK ACT 2005 (IRELAND)\textsuperscript{15}

This act defines a competent person as ‘..where, having regard to the task he or she is required to perform, and taking account of the size or hazards (or both of them) of the undertaking or establishment in which he or she undertakes work, he or she possesses sufficient training, experience and knowledge to the nature of the work to be undertaken.’

IOSH is reported as welcoming this inclusion\textsuperscript{16}, whilst regretting the absence of any reference to qualifications.

2.9 SUMMARY: STATUTORY REQUIREMENTS

Hence it can be seen that, notwithstanding the omission of competency requirements from the EU Directive, the inclusion of competency and resource requirements in the CDM regulations does not introduce a new concept, it merely reinforces an existing requirement by making it explicit within the construction sector. Other sectors already have explicit statements on this issue.

Given the poor health and safety record within the construction industry, the business benefits that can accrue from due attention to competency and resource issues, and the need for the industry to improve its skill base and method of operation, this approach is supported.

\textsuperscript{15} Due to come into force on 1 September 2005
\textsuperscript{16} Safety and Health Practitioner January 2005 p24
2.10 DUTY OF CARE

In parallel with statutory needs for competency and resource, designers and contractors are under a duty from a number of other sources to be competent, and maintain their competency, and not to endanger the safety of others. These sources include:

- A general duty of care, stemming from common law, applicable to us all,
- Institution Codes of Conduct
- Requirements of trade bodies
- Constraints imposed by PI or other insurance,
- Contract terms (employment or client based)

It is incumbent upon all members of professional institutions, through their various codes of conduct, that members ‘have regard to public safety’ and do not undertake work in areas in which they are not competent. For example the Institution of Civil Engineers state:

2. All members shall only undertake work that they are competent to do.
3. All members shall have full regard for the public interest, particularly in relation to matters of health and safety, and in relation to the well-being of future generations.

Few of these institutions however undertake checks on the ongoing competency of their membership; it is generally left to the integrity of individuals to comply [Carpenter 2004].

The Institution of Civil Engineers (ICE) has a register of those members (of ICE or other construction related institution) that have voluntarily demonstrated a specific level of competence in respect of ‘health and safety’ issues. The current take-up however is very low.

There will be some individual Contractors, Designers and Co-ordinators however that do not belong to recognised institutions or trade bodies (as discussed in Chapter 4); these individuals are nonetheless obligated under the remaining bullet points.

2.11 FINAL SUMMARY

This Chapter has demonstrated that there are a number of obligations requiring organisations and individuals to give due attention is given to the issue of ‘competency and resource’. It has also shown that other industries have some commendable approaches to the subject.
Chapter 2 outlined the statutory and duty of care provisions in respect of competence and resource. This Chapter discusses the proposals for the revised regulations (CDM 2006) and sources of advice on competence and resource.

3.1 CONSULTATIVE DOCUMENT CDM 2006

The existing legal requirements of CDM were outlined in Chapter 2, and are repeated in full in Appendix 2. The proposed requirements of CDM 2006, are also set out in Appendix 2. The obligation to employ competent Contractors, Designers and Co-ordinators remains. The new regulations do have significant differences however.

There is a new requirement on Contractors, Designers and Co-ordinators not to accept any appointment unless they have the competence to undertake the work.

3.1.1 Contractors and Designers:

Although the requirement on the Client to review competency and resource does not apply to domestic Clients (the existing situation), the requirement does now apply to Contractors and Designers engaged or engaging others in domestic work.

CDM 2006 proposes a significant change to the manner in which obligations regarding resource are implemented. Whereas in the existing CDM regulations the obligation falls on any party engaging another Contractor or Designer (Appendix 2-Reg 9), in CDM 2006, the obligation:

i) is limited to the Client, in respect of ensuring that adequate resources (including time) have been allocated to the management of the project (Appendix B-Reg 8, para 2), and

ii) is to ensure that persons are appointed under Regulation 8 or engaged as Contractors and Designers in good time.

Hence the obligation is now directed at the key project phases, rather than individual contributors, and it is assumed that ii) applies to client appointees only. These project phases are:

- the design of a structure;
- planning and preparation for construction work; and
- the construction work itself.

On many projects the first phase will extend into the final, construction phase.

CDM 2006 also requires the client to make arrangements for the ‘review and revision of the arrangements’ (Appendix 2-Regulation 8, 2b iii)). Given the frequency of change to many project timescales, both overall (usually within the client’s control), and between packages and contractors (often outside the client’s control) this is a difficult area. It is commented on further in Chapter 9.

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17 new to CDM; the requirement already exists in law.
18 The wording is not entirely clear, but the contractual implications of the client reviewing resource of contractor appointed sub-contractors are significant and impracticable.
19 and the reluctance of many clients to change the start or end dates to reflect these changes.
3.1.2 Co-ordinators
In the existing CDM regulations the obligation falls on the Client to ensure the planning supervisor is adequately resourced (Appendix 2-Reg 9). In CDM 2006, the obligation is not explicitly stated; instead it has to be read into the requirement for the Client to take reasonable steps to ensure that arrangements are made…’ (Appendix 2 Reg 7 (1)(a)). Similarly, the specific requirement on the Client, in respect of ensuring that adequate resources (including time) have been allocated to the management of the project (Appendix 2- Reg 7(2)(a)), does not explicitly mention the Co-ordinator role.

As a consequence of the above this Report considers whether a specific requirement to test resource should be included or if emphasis should be given in the guidance to clarify the matter.

The functions of a Co-ordinator are given in Regulation 13 (Appendix B) and guidance is given in Chapter 3 of the Consultative Document. These are relevant in so far as they allow a determination of the requisite elements of competency required to fulfil the role. They are examined in Chapter 4.

Relevant extracts from the proposed guidance and consultation document are included in Appendix 3.

3.1.3 Non-notifiable projects
CDM 2006 states that for those projects with a construction phase less than 30 days, or 500 man-days input, the project is ‘non-notifiable’ (Regulation 9). This means that, amongst other things, there will be no Co-ordinator appointed.

There will be many projects falling below this trigger although the Author is unaware of any statistics in this respect. The lack of a Co-ordinator on these projects is very relevant to the issue of ensuring competence and resource of those engaged by the Client, as that person/organisation may not have anyone to turn to for advice on the adequacy of the competency or resource proposed by a Contractor or Designer.

This problem is discussed in Section 8.6.

3.2 COMPETENCE CLASSIFICATIONS
By considering various sets of Regulations it is possible to derive a three route classification of competence, viz:

a) Uncertified Competence Requirements: i.e. skills that stem from common sense, training or experience.
b) Certified Competence Requirements: i.e. skills that are sufficiently complex to warrant voluntary accreditation or registration of competence (e.g. NVQs).
c) Mandatory Scheme Requirements: i.e. area of work is sufficiently risky to warrant a mandatory or statutory scheme (e.g. CORGI).

Currently, CDM requires Uncertified Competence. There are examples however where the industry is accepting Certified Competence as being the desirable norm eg CSCS scheme (Appendix 7), and recently, examples of Mandatory Schemes as noted in Section 1.2 (albeit not specifically in the field of health and safety risk management).

20 The Client should have a source of competent advice if an employer, but it is suggested that this cannot be relied on.
3.3 INFORMAL DEFINITION OF COMPETENCE

The definition given below was developed by the HSE’s CDTU \(^{21}\) Corporate Topic Group in consultation with industry technical experts for use in technical documents. It has been adopted by a number of industry groups, trade associations and British Standards committees \(^{22}\) in their publications, and is used informally within CDTU.

It has been found to be an appropriate base statement to allow competency in a particular circumstance to be assessed. It is stressed that the wording in the box should never be altered.

**A competent person** is a person who can demonstrate that they have sufficient professional or technical training, knowledge, actual experience, and authority to enable them to:-

- carry out their assigned duties at the level of responsibility allocated to them;
- understand any potential hazards related to the work (or equipment) under consideration;
- detect any technical defects or omissions in that work (or equipment), recognise any implications for health and safety caused by those defects or omissions, and be able to specify a remedial action to mitigate those implications.

This definition applies equally to a ‘Designer’ and ‘Co-ordinator’ as it does to a ‘Contractor’

3.4 HSE RELATED GUIDANCE

HSE has issued ‘competency and resource’ related guidance in a number of related publications:

*Use of Contractors* \(^{23}\) gives example questions in order to ascertain competence. It is suggested that the questions cover:

- experience
- performance (accidents etc)
- selection of sub-contractors
- training and supervision
- independent assessment
- utilisation of passport schemes
- policies and practices
- qualifications and skills
- safety method statement
- consultation
- members of trade or professional bodies
- utilisation of passport schemes

The guidance then suggests that answers to these questions may help to decide how much reliance on other evidence (eg references) needs to be made.

*Passport Schemes* \(^{24}\) These schemes ensure that workers have basic health and safety awareness training (as is the case with CCNSG, see Appendix 7). The booklet states that

\(^{21}\) Construction Division Technical Unit
\(^{22}\) BS8454 "Specification for the delivery of training and education for work at height and rescue" currently in draft and to go for public consultation.
\(^{23}\) INDG 368
\(^{24}\) INDG 381
‘HSE welcomes (such schemes) as they are a way of improving health and safety performance.’ The guidance states that a passport holder should know about:

- Hazards and the risks they may face
- How to identify relevant hazards and potential risks
- How to take steps to control the risk to themselves and others
- Where to find additional information
- Hazards or risks they can cause to others
- How to assess what to do to eliminate hazard and control risk
- Safety and environmental responsibilities, and those of the people they work with
- How to follow a safe method of work

The guidance emphasises the advantages of knowing that different groups have been trained to a common standard thus allowing free movement of labour. Mutual recognition between schemes is encouraged to avoid duplication of effort. In this vein, HSE has included in the leaflet a ‘core syllabus’ as a means of assisting and encouraging this process of mutual recognition. The core syllabus is given in Appendix 9.

This guidance is centred around Contractors. There appears to be no reason however why the principles should not apply to Designers and Co-ordinators, although the detail will change to reflect different needs.

3.5 HSE INDICATORS (http://www.hspi.info-exchange.com/)

This is a useful web based assessment tool designed to allow businesses to determine their level of compliance and standing against others. It operates on an anonymous basis. It is considered further in Chapter 10 as a means of assisting organisations work towards a standard and measure improvement in that position over time.

The scheme has been launched with a view to allowing insurance companies to more accurately tailor their premiums against a company’s organisation and performance and hence realise lower premiums for the better performers. The tool was developed in conjunction with the Association of British Insurers (ABI), amongst others. The Author has detected some signs from the insurance industry that they are prepared to link performance initiatives of this type with premium. It is hoped that this will continue and become the norm as the insurance industry remains one of the untapped drivers to raising standards generally in this field.

3.6 SUCCESSFUL HEALTH AND SAFETY MANAGEMENT (HSG65)

This is an authoritative text [HSE 2000] on the principles and management practices which provide the basis of effective health and safety management. Competency is described on pages 26-32. The guide includes ‘good arrangements’ to achieve competency, these include:

- Recruitment and placement procedures which ensure employees have the ability to undertake the role
- Identification of training needs
- Refresher training
- Systems to provide the information, instruction and supporting communications to meet the above needs
- General health promotion and surveillance
4. BACKGROUND MATTERS

4.1 INDUSTRY CHARACTERISTICS

The construction industry is characterised by the fact that companies with between one and nine employees account for 90% of all organisations, while less than 1% have 250 or more employees; this reflects a national pattern for business generally. Depending upon the definition chosen, the number of people employed in construction is around 2.2 million\textsuperscript{25} [CITB 2003]. Of these, around 35% are self employed although in some areas (geographical and skill) this figure is significantly higher.

In respect of professional construction services, Construction Industry Council (CIC) reported [CIC 2003] that there were 23500 organisations, of which:

- 23% were one person
- 81% employed less than 10 persons
- Only 3% employed more than 50
- 3% generate more than 60% of fee income
- contract staff accounted for only 4-7% of those employed.

The breakdown of professionals is given as [CITB 2003]:

**Table 1 Occupations: Professional**

<table>
<thead>
<tr>
<th>Main professional occupations</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Engineers</td>
<td>47195</td>
</tr>
<tr>
<td>Other Engineers</td>
<td>63932</td>
</tr>
<tr>
<td>Other Professionals</td>
<td>24613</td>
</tr>
<tr>
<td>Architects</td>
<td>36518</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>172258</td>
</tr>
</tbody>
</table>

**Table 2 Occupations: Technical**

<table>
<thead>
<tr>
<th>Main technical occupations</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Civil engineering</td>
<td>16263</td>
</tr>
<tr>
<td>Architectural and Town Planning</td>
<td>10887</td>
</tr>
<tr>
<td>DraughtsPersons</td>
<td>16694</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>43844</td>
</tr>
</tbody>
</table>

These numbers relate to the built environment but include persons other than ‘Designers’.

Obtaining an accurate breakdown for those operating in the construction industry is difficult. Although perhaps most individual ‘Designers’ belong to a professional institution, identifying individual ‘Contractors’ is more problematic. Similarly many design and contracting organisations do not belong to any recognised industry body. The DTi estimates that there are some 190,000 ‘construction organisations’—in the main sole traders, micro and small in size—but no figures appear to be readily available for the specific grouping of interest ie Contractors and Designers. This has a relevance to any strategy for raising standards as it is difficult to locate and communicate with these people.

\textsuperscript{25} SIC45 and SIC74.20
There are no statistics available in respect of planning supervisors. It is known that the majority of individuals offering this service do so as an adjunct to their ‘day job’ as designers, project managers, and the like (see Section 4.14).

Professional Institutions
A survey by the Construction Industry Council [CIC 2003] indicated that there were some 225,000 people working in construction professional services. Of this it was estimated that 38% were full members of professional institutions, and a further 33% were educated to HNC or above. This leaves some 74,000 who are not members of a recognised body although not all of these will be Designers.

These overall statistics, which lack the detail required for careful analysis, illustrate in part why the construction industry is so complex to regulate.

4.2 MICRO, SMALL AND MEDIUM Sized ENTERPRISES (SMEs)

Regulatory requirements should reflect the size distribution of organisations, to the extent that it is inequitable and self defeating to lay a burden on SMEs that is unnecessary and which does not add any value. The negative impact of ‘red tape’ is well established and of particular concern to SMEs. However, in respect of ‘competency and resource’ (and health and safety issues generally) the law does not differentiate between SMEs and larger organisations; all have to be competent and apply appropriate resource, suited to the task they are engaged to do.

The law does differentiate however in the method of record keeping, relaxing the need for a written health and safety policy, and the details of organisation and arrangements for employees, in those SMEs employing less than 5 persons[^26]. In all other respects, the requirements are the same for all organisations although clearly SMEs will be able to have procedures and protocols that reflect a smaller, less complex organisational structure. Proportionality is acknowledged as being a desirable approach; this is not the same however as omitting some aspects of competency in organisations below a certain size.

It has been noticed in the course of researching this report, that a number of schemes directed at SMEs do not reflect the above, and leave the impression-implicitly if not explicitly- that SMEs do not have to demonstrate competence across all the necessary areas. For example, CHAPs (Tier 1) and Building Regulations self-certification scheme Part P (Appendix 7). Where this occurs in public sector schemes, it appears to derive from the matters discussed in the Introduction.

It is clear from the Author’s discussions with some of the umbrella organisations which represent SMEs (specifically the micro firms, and those which work in the domestic market) that the full requirements of health and safety compliance, would be considered to be a major burden for many in this group. This was also confirmed by CHAS (See Section 5.5).

There is the prospect therefore of a number of current industry schemes stating or leaving the impression that their members are ‘competent’ whereas in the Author’s view the test they have undergone would not satisfy the requirements of health and safety law.

The recommendations that come later in this report do not differentiate in respect of organisational size, apart from where the law expressly allows in the identified respect. This may present an initial problem to many existing SME organisations but it is believed that now is the time to raise standards to the requisite basic level. The CDM Regulations are geared to

[^26]: Management of health and safety at work regulations
weeding out those without the necessary competence and adequacy of resource. Support mechanisms however should be made available to those SMEs which are endeavouring to raise standards.

4.3 THE DOMESTIC MARKET

A high percentage of work carried out by SMEs is for the domestic market\textsuperscript{27}. These Clients often only undertake one project in their lifetime; they do not understand the construction industry, and fall outside the CDM Regulations. Often their sole criterion in the engagement of a designer or contractor is the price. It is argued by some that this generates a reciprocal indifference on the part of the Contractors and Designers engaged. It is noted however that whereas in the current CDM regulations the requirements for competency do not apply to Contractors or Designers in the domestic market, the draft CDM\textsuperscript{2006} requires competence to be assured in all cases. It is only the client that is excused from taking any part in this.

4.4 ILL HEALTH AND ACCIDENT PROFILES

Unfortunately there is limited data available in respect of the distribution of accidents and ill health by size of company or construction site. The analysis of any data, apart from fatalities, is hampered by the significant degree of under-reporting known to occur. Notwithstanding, some fatal accident data is available and is illustrated below\textsuperscript{28}:

<table>
<thead>
<tr>
<th>Type of work</th>
<th>2000-01</th>
<th>2001-02</th>
<th>2002-03</th>
<th>2003-04p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refurb*-Non</td>
<td>31</td>
<td>36</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Domestic</td>
<td>12</td>
<td>19</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Total Refurb</td>
<td>43</td>
<td>45</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>New Buildings</td>
<td>37</td>
<td>12</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Civil Works</td>
<td>16</td>
<td>18</td>
<td>14</td>
<td>10</td>
</tr>
</tbody>
</table>

*includes maintenance and repair

Over the same period the proportion of construction work covered by CDM has varied between 47-75%. Similarly over the period, 64-78% of the work has been undertaken by small contractors, and 49-72% was on small sites. Around 75% of all work was reported as belonging to the private sector.

HSE report that it has been established that more small firms operate in the refurbishment market than do large ones. Hence overall, it can be seen that contribution to the overall figures by small organisations working on small sites, is significant and hence the need for these organisations to be competent is essential.

4.5 CONTRACTUAL RELATIONSHIPS

Although statutory duty is generally blind to contractual relationships, the latter do have a significant influence upon the ability to discharge responsibility, and to the construction of workable regulations.

\textsuperscript{27} The FMB report that some 70-80\% of their members’ work is for this sector.
\textsuperscript{28} From HSE ‘Blackspot’ report
Construction work is acquired through three prime routes:

**Table 4 Contractual Routes**

<table>
<thead>
<tr>
<th>Route</th>
<th>Characteristics: Contractors</th>
<th>Characteristics: Designers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>Single contractor appointment</td>
<td>Majority of designers appointed by client; design largely undertaken by consultant designer</td>
</tr>
<tr>
<td></td>
<td>Sub contractors appointed by main (principal) contractor.</td>
<td></td>
</tr>
<tr>
<td>Management Contracting</td>
<td>Single management contractor appointment by Client. Sub contractors appointed by managing (principal) contractor.</td>
<td>Initial designers appointed by client, but detailed design often undertaken by those working for main or sub contractors. Initial Designers may be novated to D&amp;B contractor No direct contractual link with client in latter case.</td>
</tr>
<tr>
<td>Construction Management</td>
<td>All package contractors appointed by Client. Remaining sub contractors appointed by these contractors.</td>
<td>Initial designers may be appointed by client Detailed design often undertaken by package contractors, although some design may be by sub-contractors. Direct link to client in most cases.</td>
</tr>
</tbody>
</table>

Apart from the Traditional route, it is often the case at commencement of construction, that packages of work further downstream, eg finishes, fitting out, M&E requirements, are not known in any detail and may be represented by a prime cost sum.

Hence it is in cases where the Client directly appoints (either Contractors or Designers) that he is able to discharge any statutory duty in respect of competency or resource, supported by contractual control. Although contractual control could be established, through the supply chain, in respect of others, it is suggested that this could only be in terms of principles, rather than detail, in order to avoid complex contractual dispute and engender a lack of clarity.

### 4.6 ISSUES ASSOCIATED WITH THE SUPPLY CHAIN

Despite some significant progress in improving supply chain relationships (through Constructing Excellence, OGC, the endeavours of trade organisations and best practice clients) there remain a number of structural issues associated with engaging organisations viz:

- Insisting at tender stage that high standards are attained eg use of CSCS, or equivalent, and directly employed labour, but then subsequently accepting the lowest price, often attached to a non-compliant bid in this respect.
- Failure to recognise the labour issues associated with early or delayed start dates.
- Failure to check CSCS or other accreditation cards on site thereby allowing the less scrupulous to avoid this commitment.

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29 It is important that the Client and Project Team understand the risks associated with complex or unsuitable contractual arrangements Unsatisfactory arrangements contributed to the Heathrow Tunnel and Nicoll Highway collapses.
On many projects sub-contracting is several ‘layers’ deep and is often unregulated by principal contractor or client.

These issues relate to the overall deficiencies of the industry and, together with retentions, and other payment issues for example, require a cultural change in order to make the progress required.

4.7 LONG TERM RELATIONSHIPS

The industry is characterised by its mainly project-led approach to business. The disbenefits to this are well documented and remain, in the Author’s view, an impediment to progress. One of these disbenefits is that Contractors, Designers and planning supervisors find themselves being assessed for ‘competency and resource’ on a frequent basis as each client independently goes through the process of ensuring that those they employ satisfy Regulations 8&9. This is aggravated by each Client (or more probably, their professional advisors) requesting different information, in varying formats.30 31

Pending the wider use of long term relationships such as framework agreements, which significantly reduce the frequency of such checks, the use of industry assessment schemes go some way to removing these frustrations. It is important however that these schemes recognise each other and permit reciprocal membership, where necessary, in order to avoid another manifestation of the same problem.

In the longer term however framework agreements (in their various guises) are to be desired as these allow designers and contractors to be assessed over a period of time for strict compliance and also for a commitment to continuous improvement, respect for people, and best practice generally. The public sector is committed, at both local and national level, to developing longer term relationships and there are some well known examples of this eg ProCure 2132. Sections of the private sector have done this for many years.

4.8 EMPLOYMENT TRENDS

The construction industry is also characterised in many, if not most of its sectors, by the high usage of self-employed labour. Although this occurs mostly within contracting organisations, it is also present within some consultant groups. This is not how it used to be 30 years ago when HASWA first appeared, but as commercial pressures have grown, and employment obligations have become more onerous, the temptation to use self-employed labour within a project led environment has intensified. Overall for the industry self-employment stands at 35% [CITB 2003] although there is significant variation between trades eg floorers 75% and roofers (a high risk activity) 55%. The Labour Force Survey of employment (SIC 45) for the period Summer04-Spring05 indicates that some 60% of manual labour in the South East was self-employed. Apart from some creditable exceptions33 for many the industry remains a ‘hire and fire’ workplace.

One side effect of this situation is that ‘employment culture’, involving ownership of the workforce, company identity, loyalty, career progression, appropriate welfare and financial

30 the frustration is exacerbated in the knowledge that frequently the answers are not competently assessed or compared.
31 The point was made however that given most contractors regularly employ sub-contractors they know, why are ‘competency checks’ still an issue?
32 The ‘best practice’ procurement vehicle used in the NHS
33 Heathrow Terminal T5 and Laing O’Rourke in particular.
benefits, and training disappear. Vitally, the opportunity for trainee placements also reduces as there is a minimal structure within which it can operate.

The Author believes, as intimated in the Introduction, that this situation militates against the drive for improvement in recruitment, retention and respect; it acts as a restraint on competence. In particular, despite the numbers of interested young persons applying to train as a craftsperson, the system can only cope with a greatly reduced number because of the limited places available for training and apprenticeship (See also below under ‘Training’). This has impacted upon the take up of CSCS cards in some skill areas as noted in Appendix 7 where it is reported that only 8.5% of card holders are from the ‘biblical trades’.

4.9 INLAND REVENUE: CONSTRUCTION INDUSTRY SCHEME (CIS)

Independently of the industry itself, the Inland Revenue (IR) has taken an interest in the construction ‘self employed’ over several years believing many to be bogus, in tax terms, thus making gross payments inappropriate. Any reduction in the use of casual or self employed labour as a consequence of IR action, would nonetheless have a beneficial effect generally for the reasons set out throughout this report. The Treasury has announced that the existing CIS is to be changed. As at February 2005, however, it was reported that little progress was being made. Details are available on the IR website. Nonetheless, a blitz by IR during 2005 has encouraged more organisations to increase their payroll staff. (As at October 2005 the IR has announced that the introduction of the new CIS will be delayed for a year- until April 2007).

4.10 OBTAINING A FULLY QUALIFIED WORKFORCE

CITB-ConstructionSkills indicates [CITB 2004] that in 2008 the aim is for 850,000 to have passed the national health and safety test. Although there are very few exemptions to this test, this figure currently does not relate directly to the number of CSCS card holders as not everyone goes on to achieve the skills part of the card and not all card holders have sat the test. CSCS report that there are 735000 current card holders with the aim for a fully qualified workforce by 2010. (see also however recent announcements made in respect of numbers- Appendix 7)

The aim for a fully qualified workforce is essential but is clearly a significant challenge.

4.11 WORKER SAFETY ADVISOR SCHEME (WSA)

This scheme has now established itself after a somewhat shaky start. It focuses very much on giving advice in a non-confrontational manner and could be used perhaps to inform employers of the benefits of employed labour and of qualifying the workforce and how this might be achieved.

4.12 SAFETY SUMMIT: FEBRUARY 2005

The summit had, in effect, an informal theme of ‘competency and resource’ running through the day. This manifested itself through the following:

Respect for People [SF 2005]: this code of practice sets out good working practices for all parties involved in construction. Adequate competence and resource features as a key action for stakeholders. The mission statement states that ‘We require all who work in the industry to be competent through education, training, experience and continuous development.’

34 Construction News February 2005
35 http://www.inlandrevenue.gov.uk/cis/reform.htm
CSCS Card holders: CITB predicted an increase in competent cardholders to 1.25 million by 2010 (but see also the recent press reports noted in Appendix 7).

Government Commitment: The Construction Minister stated that he was determined to ensure that every government department and agency specifies a primary requirement to provide a safer environment on all their construction sites and refurbishment projects. ‘Government departments must lead the way on health and safety. We shall be assessing the health and safety performance of our short-listed supply teams. Our message is clear – if you want to get on a shortlist, or stay on a shortlist, then you had better be best in class in health and safety. We will also require our constructors to be registered with blue chip schemes like the Considerate Constructors Scheme, as we work with you to drive quality and safety through the supply chain’. This commitment has resulted in the ‘Common Minimum Standards’ document.

4.13 COMMON MINIMUM STANDARDS

Stemming from the statements made at the Safety Summit, OGC has produced ‘Common Minimum Standards’ (and available on the OGC website at www.ogc.gov.uk )\(^{36}\). This contains some welcome requirements, very relevant to this subject. The introduction states that:

Ministers have now agreed the key minimum procurement standards, which are mandatory across central government, including departments, executive agencies and the non-departmental public bodies for which they are responsible. They will apply to any procurement of a built environment carried out in England for a public sector client, whether through a capital procurement, a private developer scheme or a PPP/PFI.

Departments will be expected to take all reasonable measures to ensure that the standards are also adopted throughout the wider public sector, where responsibility for the expenditure of public funds has been devolved – such as to local authorities, health trusts and the police

---

\(^{36}\) this is not easy to find; suggest use of the search facility
These standards include:

**Table 5: Extracts from ‘Common Minimum Standards’**

<table>
<thead>
<tr>
<th>Item</th>
<th>Standard</th>
<th>Author’s Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Pre-qualification and tendering processes should be appropriate for the project, meeting legal obligations and avoiding unnecessary bureaucracy and costs for suppliers.</td>
<td>The use of ConstructionLine is heavily promoted, but not exclusively. It will be essential that public sector clients recognise other compliant schemes.</td>
</tr>
<tr>
<td>2.7</td>
<td>Clients are to ensure that appropriate expert support has been procured to advise on design, sustainability and health &amp; safety issues.</td>
<td>General emphasis on health and safety issues.</td>
</tr>
<tr>
<td>3</td>
<td>Health and Safety</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>All clients are to follow OGC’s Achieving Excellence in Construction Procurement Guide 10, Health and Safety</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Clients are to assess the health &amp; safety performance and processes of their shortlisted supply teams as a fundamental part of the pre-qualification assessment process.</td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Clients are to include within all contracts involving construction a requirement for their constructors to be registered with a suitable site management / good neighbour scheme such as the Considerate Constructors Scheme and to comply with the scheme’s Code of Considerate Practice.</td>
<td>This is not listed as a component of the ‘Core Criteria’ (Appendix 10) but will be relevant to all public sector projects.</td>
</tr>
<tr>
<td>3.5</td>
<td>Clients are to include a contract clause requiring that all members of their supply teams who are workers on or regular visitors to a construction site are registered on the Construction Skills Certification Scheme (CSCS) or are able to prove competence in some other appropriate way.</td>
<td>This supports the general tenure of the recommendations of this report.</td>
</tr>
</tbody>
</table>
4.14 EXPERIENCE TO DATE: PLANNING SUPERVISOR

The views of industry in respect of this role are summarised in the Consultative Document ‘Outline and Explanation of HSC’s Proposals’ paragraph 51. One comment directly relates to the subject of competency and resource ie

‘frequently have to operate at a disadvantage, due to insufficient allocation of resources by the client, in terms of money and time.’

As indicated elsewhere, the majority of construction organisations are SMEs. Surveys undertaken by the APS\textsuperscript{37} have indicated that a significant majority of practitioners undertake the role of planning supervisor as an adjunct to their ‘day job’ of designer; specifically: 60% of APS members work as designers spending typically 38% of their time as ‘planning supervisors’. 35% spend between 50-100% of their time in this role.

It is not the purpose of this report to debate the wider issues associated with the role of the planning supervisor. However, ensuring that suitable competency and resource is allocated to the role will play an important part in ensuring the replacement duty holder (Co-ordinator) makes a real contribution to the project.

It is clearly important that industry is aware of the expectations in this respect arising from CDM\textsuperscript{2006}. It is unlikely that there will be another opportunity to set the ‘crossbar’ at an appropriate level so as to exclude those who are not competent from discharging the functions.

4.15 THE NATURE OF THE ‘CO-ORDINATOR’

The Consultative Document states that the role of Co-ordinator has been developed from that of the planning supervisor\textsuperscript{38}.

4.15.1 Consultative Document: Guidance

Chapter 3 of the Consultative Document is devoted to the Co-ordinator. A clear indication of the role and requirements is given in the text, for example:

- It is intended to provide the Client with an empowered and key health and safety advisor who is pivotal in ensuring an effective and cohesive project team (para 99)
- ….a Co-ordinator can make a significant contribution to reducing risks ……(para 99)
- ..to assist and advise the Client and ensure the project is set up properly (para 102).
- Co-ordinators need good interpersonal skills and a sound working knowledge of:
  - health and safety in construction work
  - the design process
  - other aspects of planning and preparing for construction work
  - site processes

\textsuperscript{37} Association for Project Safety
\textsuperscript{38} The Author does have concerns in respect of a number of issues associated with the new role as set out in the Regulations and Guidance; however comments are generally only made where it is considered they impact on competency and resource issues.
relevant to the project (para 103).

- The size and complexity of the project determines whether an individual is capable, and has the resources to carry out all of the work required (para 103).

- Co-ordinators are not necessarily Designers…. they must have sufficient knowledge of the design process to enable them to hold meaningful discussions with Designers, and participate fully in relevant design team meetings.

The phrase ‘key health and safety advisor’ (bullet 1) could give the wrong emphasis. It might imply someone who is primarily a qualified occupational health and safety professional, eg a member of the Institution of Occupational Safety and Health, with knowledge of construction being secondary (or absent). The Author believes that a more appropriate phrase would be ‘key project advisor in respect of health and safety risk management matters’.

The ‘health and safety in construction work’ should be extended to include the ‘use of the facility’.

It is assumed that a sound working knowledge of the ‘design process, other aspects of planning and preparing for construction and site processes’, will include a general knowledge of these aspects eg procedure, technical aspects, interaction between disciplines, in addition to a deep understanding of design itself.

The Guidance indicates ‘what Co-ordinators must do’. This is scheduled in Table 6.

**Table 6 What Co-ordinators must do**

<table>
<thead>
<tr>
<th>Requirements (paragraph 107 of the Consultative Document)</th>
<th>Required Skills (inserted by the Author)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-Advise and assist Clients with their duties</td>
<td>Knowledge of contract, procurement routes and their effect upon H&amp;S issues. Ability to determine adequacy of competency and resource of other duty holders. Ability to develop, monitor and amend effective management arrangements. Ability to comment on Construction Phase Plan. Ability to advise on the implications of change.</td>
</tr>
<tr>
<td>b-Co-ordinate design work, planning and preparation for construction where relevant to H&amp;S</td>
<td>Ability to manage team meetings called by Co-ordinators and to input to other meetings. Ability to ensure design work is co-ordinated, that significant H&amp;S issues are addressed and that Designers work together to ensure problems are resolved. Knowledge of design and construction process. Knowledge of ‘safety in use’ issues.</td>
</tr>
<tr>
<td>c-Liaise with Principal Contractor on design issues</td>
<td>Ability to ensure design co-ordination occurs during the construction phase. Knowledge of specific issues associated with temporary works.</td>
</tr>
<tr>
<td>d-Manage the flow of H&amp;S information including advising Client how to fill significant gaps</td>
<td>Ability to check (see Note 1) the suitability of information prepared by Designers for Contractors. Ability to identify need for additional surveys etc.</td>
</tr>
<tr>
<td>e- Produce H&amp;S File</td>
<td>Ability to check (see Note 1) the suitability of information for the H&amp;S File. Organisational ability to obtain data from wide range of sources to a timetable.</td>
</tr>
</tbody>
</table>
Note 1: It is suggested that the requirement to ‘check’, the word used in the guidance (Table 6 item d and e), should be the lesser standard of ‘monitor’ or ‘review’.

A key element of the design process is ensuring that the proposals have due regard to constructability issues. The question arises therefore as to the sufficiency of site works experience amongst the design team and the Co-ordinator. Should the Co-ordinator consider this to be deficient it will be necessary for advice to be sought. This should form part of the initial proposals (see Appendix 11).

4.15.2 Consultative Document: Regulations

Regulation 13 sets out the ‘functions’ of the Co-ordinator (note that there are no duties). It has been confirmed by HSE that these functions may be distributed amongst more than one Co-ordinator at any one time. These functions are:

**Table 7 Functions of Co-ordinator**

<table>
<thead>
<tr>
<th>Function</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)-assist and advise the Client</td>
<td>Note the comment from Section 4.2.1 ‘a key health and safety advisor who is pivotal.’</td>
</tr>
<tr>
<td>(b)-identify and extract the information specified in Regulation 10</td>
<td>This includes identifying the need for further technical information.</td>
</tr>
<tr>
<td>(c)-advise on the suitability and compatibility of designs</td>
<td>Requires good all round experience in addition to competence in health and safety matters.</td>
</tr>
<tr>
<td>(d)-co-ordinate design work, planning and other preparation</td>
<td>As above</td>
</tr>
<tr>
<td>(e)-liaise with the Principal Contractor in respect to any design or change…</td>
<td>As above and good inter personal skills. May need an understanding of temporary works.</td>
</tr>
<tr>
<td>(f)-provide information relating to Regulation 10</td>
<td>To anyone designing a structure; the Principal Contractor; every Contractor appointed, or likely to be appointed by the Client</td>
</tr>
<tr>
<td>(g)-prepare, review etc H&amp;S File</td>
<td>Good organisational skills and knowledge as outlined above.</td>
</tr>
<tr>
<td>(h)-pass H&amp;S File to Client</td>
<td>Good organisational and inter-personal skills needed to ensure delivery is on time.</td>
</tr>
</tbody>
</table>

Table 7 Item (b) infers that the Co-ordinator will need to have a good understanding of the information required for the project in hand in order to make a judgement as to the need for additional data, and then have the ability to obtain it. In many cases the Co-ordinator will be able to turn to the Designer(s) for advice on this issue (for example, contamination surveys) and would be wise to do so for contractual reasons.

The requirement to provide information (Table 7 item f) will obligate the Co-ordinator to be thoroughly familiar with a wide range of parties, many of which will not be appointed by the Client, and some of which will only appear during the construction phase. Hence these will include Designers appointed by both Client and Contractors. The wording of the regulation infers that it will not be acceptable to convey the data relating to Contractor appointed Designers, via the Principal Contractor. If this is intended, it will be prudent therefore for Co-ordinators to have contractual backing to support this requirement (through the Designer and the Construction contracts with the Client), but good interpersonal skills will be crucial. (However Regulation 16 requires the Principal Contractor to pass on relevant information).

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39 the phrase ‘a person’ in Regulation 8 (1) (a) allows for more than one entity to be appointed; this explains Regulation 13 (2). It would be helpful if this was emphasised in the Guidance.
The advice on ‘suitability etc’ and ‘co-ordination’ (Table 7 items c and d) relates to health and safety issues. This application is mentioned specifically in the guidance.40

The knowledge and ability requirements set out in this Section 4.15 are used to derive the competency standards in Chapter 8.

4.16 THE STRATEGIC PROCESS OF ASSESSING OR DEMONSTRATING COMPETENCE AND RESOURCE

It is worth reviewing the strategic process involved in assessing or demonstrating adequate competence and resource.

4.16.1 Competence

‘Competence’ is a retrospective view of an individual or organisation- as is clear from Chapter 2, and the issues discussed above. As such it may be dealt with as indicated below:

**Table 8 Assessment Stages: Competency**

<table>
<thead>
<tr>
<th>Approach</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>One stage</td>
<td>Competency assessed for the range of work types likely to be encountered. Specific project details may or may not be known at this stage, but sufficient detail may be confidentially predicted.</td>
</tr>
<tr>
<td>Two stages</td>
<td>Generic competency established broadly independent of specific work type. Project specific competency elements established at time project is known or proceeds</td>
</tr>
<tr>
<td>• 1 (Pre-qualification)</td>
<td></td>
</tr>
<tr>
<td>• 2</td>
<td></td>
</tr>
</tbody>
</table>

Stage 2 elements usually consist of an assessment of the ability of the organisation to deal with the specific work type (by size or complexity), or project specific hazards (eg contamination).

Although these Stage 2 assessments are sometimes executed during the tender period itself, the Author has found that separate assessment in advance of, and as a means of finalising tender lists, is often the most appropriate approach.

Most of the existing ‘assessment schemes’, discussed in Chapter 4, and detailed in Appendix 7, are limited to Stage 1 reviews.

4.16.2 Resource

The assessment of adequate ‘resource’ is a forward looking review. It relates to the determination of resources that will be used on specific future projects, not a retrospective review of work that has taken place (although benefiting from experience may aid the process). This assessment may also be achieved as indicated in Table 9.

40 The Author believes that the function should be to ‘ensure co-ordination etc occurs’ as the Author considers it is for Designers to actually perform this function.
Table 9 Assessment Stages: Resource

<table>
<thead>
<tr>
<th>Approach</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>One stage</td>
<td>Resource assessed for the range of work types, based on confident predictions of work situations, hazards and the like. This may be from a generic knowledge or from the specific project details.</td>
</tr>
<tr>
<td>Two stage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generic assessment for those elements of ‘resource’ that allow prediction and description, in advance of the known work</td>
</tr>
<tr>
<td></td>
<td>The balance of ‘resource’ assessment that is specific to the actual work</td>
</tr>
</tbody>
</table>

One stage approaches may often be made on framework agreements, standard designs, maintenance contracts and similar work packages where it is reasonable to predict the resource (e.g., supervision, experience of workforce, access to advice, proposed management chain).

The two-stage approach allows those elements which depend upon the, as yet unknown, project details to be left until details are available. Unlike the recommendation in relation to competency Stage 2 assessments, it is more likely that the balance of resource assessment is best achieved as part of the tender process. It may only be at that stage that a prospective contractor will be aware of the resource actually needed.

The consideration of one and two stage processes is relevant to the examination of assessment schemes, discussed in the next Chapter.

4.17 CERTIFICATION ISSUES

As has already been mentioned some work sectors or other elements of the industry already have certification procedures. It is considered useful to review the options associated with certification as part of the background to ‘competency and resource’ assessment.

1st Party (Self) Certification

This has many advantages as it would allow those organisations which engage others to proceed on the basis of a certified statement by the organisations which are being engaged. Such a statement would certify that the organisation had, and implemented, the key elements of competency (defined in Chapter 10). The certificate would be signed, not by the Project Manager, but by the Managing Director, or equivalent, to give emphasis that the statement was a corporate commitment. It would be a condition that no work began until this statement was received. Clients could insist on higher standards if they so wished.

This approach would, at a stroke, remove the myriad of forms and questionnaires currently being circulated and reduce the time spent both by those initiating and those responding, to variable requests for data.

Unfortunately, this approach depends upon the integrity of the large number of organisations participating in the construction industry. The point was made on several occasions to the Author that the industry could not be trusted in the commercial environment and diverse manner in which it operated, to deliver what the certificated indicated. There was no certainty of a level playing field, particularly as it would be known that enforcement would be at no higher intensity than at present.
It is however an approach that should be kept in mind, particularly so in respect of any partnership scheme that might be developed and which relied on self regulation as part of an agreement built on trust.

2nd Party Certification
This is typically achieved through an umbrella organisation such as a trade body but using an external validation body. This approach already operates in the industry eg the SEC scheme (Appendix 7). In Scotland, the Construction Licensing Executive (CLE) (see Appendix 7) audit authorised schemes for competent domestic contractors. It is the aim to have all construction organisations in Scotland licensed in due course.

3rd Party Certification
In this case the scheme operates independently from any interest eg CHAS, ConstructionLine.

In considering these three routes it is not intended to prevent any particular client asking for an individual assessment as occurs now. (This is, in effect, 1st Party Certification plus a client check).

Although many organisations will see the advantage of being certified, the question arises however as to the incentive for organisations to become certified, particularly so in the areas of construction where those engaging designers and contractors are not inclined to implement this check. The Author has identified four potential drivers:

Table 10 Drivers for belonging to assessment schemes

<table>
<thead>
<tr>
<th>Driver</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance premium</td>
<td>There are some discrete signs that the insurance industry is able to link such demonstration of competency with premium. The ABI scheme has this potential (See Appendix 8)</td>
</tr>
<tr>
<td>Licence to practice</td>
<td>Extending the philosophy of the ‘Competent Person’ schemes (See Appendix 7) to a general requirement. This is in effect imposing a requirement for Mandatory Certified Competency (see Section 3.2)</td>
</tr>
<tr>
<td>Client pressure</td>
<td>Some clients may insist on certification in order to save themselves the trouble of ascertaining competency. The ‘Common Minimum Standards’ requirements clearly points towards the need for membership of a pre-qualification (ie Stage 1) competency scheme for public sector clients. ConstructionLine is nominated. (See section 4.13)</td>
</tr>
<tr>
<td>Market pressure</td>
<td>If sufficient organisations belong it should create its own momentum</td>
</tr>
<tr>
<td>Regulatory benefit</td>
<td>Organisations which clearly demonstrate compliance are likely to benefit from a lighter regulatory touch</td>
</tr>
</tbody>
</table>
5 EXISTING FORMAL SCHEMES AND TRAINING PROVISION

5.1 BACKGROUND

There are a number of existing ‘assessment’ schemes which have been established by both public and private sector sponsors in order to provide a central service to Clients, in respect of Contractors and Designers; only one substantive example is available to individual planning supervisors. As mentioned in Chapter 4 one of the downsides to competency and resource assessment is the request for those who are engaged to be repeatedly assessed, and worse still, to varying requirements.

The aim of these schemes is to avoid this unnecessary, and time consuming process. Also as mentioned in Chapter 4, the proliferation of schemes, although well intended, has the risk of perpetuating this concern, albeit on a lesser scale, if not appropriately controlled.

None of the schemes identified is intended to consider ‘resource’.

Some of the schemes stop short of describing themselves as ‘competence assessment schemes’ (using instead the lesser standard of ‘health and safety awareness’ or similar phrase). Most of these examples would perhaps call themselves ‘pre-qualification’ schemes, and fall within Stage 1 assessments as described in Chapter 4. Other schemes however are content to state that organisations passing their relevant tests and assessments can be considered as ‘competent’. This implies they cover the ‘One Stage’ or both parts 1 and 2 of the ‘Two Stage’ assessments outlined in Chapter 4.

In addition to the above, and as indicated previously, some schemes directed at SMEs do not request sufficient information for them to be assessed as competent in health and safety terms, although they may perform a useful ‘stepping stone’ in this direction.

For some registrants ‘Constructionline’ is currently limited to being a database of supplied information, available for others to assess. This implies that it is not a pre-qualification scheme, unless the registrant has chosen the associated CHAS route (see Appendix 7) in which case the data is assessed. The Author understands however that it is intended to make CHAS an integral part of the process such that in future all registrants will have been assessed; existing registrants will also be required to undergo assessment.

Current, selected schemes directed at organisations are scheduled below, with detailed commentaries given in Appendix 7.
TABLE 11 Examples of Assessment Schemes: Organisations

<table>
<thead>
<tr>
<th>Scheme Name</th>
<th>Contractors or Designers</th>
<th>Site/Office Audit included</th>
<th>Data assessed</th>
<th>Sector Restricted to Construction</th>
<th>Part of overall assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPS</td>
<td>Contractors</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CHAS</td>
<td>Both</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ConstructionLine*</td>
<td>Both</td>
<td>No</td>
<td>No**</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CORGI</td>
<td>Contractors</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>EXOR</td>
<td>Both</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>LINK-UP</td>
<td>Both</td>
<td>Railways</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCG</td>
<td>Contractors</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>NHBC</td>
<td>Contractors</td>
<td>No</td>
<td>No</td>
<td>House-building</td>
<td>-</td>
</tr>
<tr>
<td>OCR1322</td>
<td>Contractors</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>SEC</td>
<td>Contractors</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>??</td>
</tr>
<tr>
<td>Safe Contractor</td>
<td>Both</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>SHEQUAL***</td>
<td>Contractors</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Trust Mark</td>
<td>Contractors</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Data collation only; health and safety element optionally provided by CHAS.
** Yes if registrant is CHAS registered.
*** Only available to clients of the sponsor.

The industry has also developed schemes directed at the competency of individuals. Of these, the Construction Skills Certification Scheme (CSCS) is by far the largest.

The Association for Project Safety (APS) has a ‘corporate’ membership category but this does not test the adequacy of the organisation itself other than requiring it to hold PII and have at least one member who is an individual member of APS.

5.2 SCHEMES FOR INDIVIDUALS

If we accept the definition of competency set out in 3.3, it follows that schemes that test individual competency need to include an assessment of technical/professional education and training, a requirement relating to health and safety knowledge, and experience. At present, passport type schemes, although providing an important transportable element, and fulfilling a required role in respect of health and safety knowledge, do not cover all these heads. In addition, anecdotal evidence suggests that the inability of some passport providers to agree on common core contents (despite HSE advice and guidance) and mutual recognition, is preventing savings and advances being realised.
TABLE 12 Examples of Assessment Schemes: Individuals

<table>
<thead>
<tr>
<th>Scheme Name</th>
<th>Contractors or Designers</th>
<th>Site/Office Audit included</th>
<th>Candidate assessed</th>
<th>Sector Restricted to Construction</th>
<th>Part of overall assessment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td>Contractors</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>APS *</td>
<td>Designers</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CIC ‘Designer Competency’**</td>
<td>Contractors</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>CCNSG</td>
<td>Contractors</td>
<td>n/a</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CSCS(and affiliated cards)</td>
<td>Designers</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CORGI</td>
<td>Contractors</td>
<td>n/a</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ICE H&amp;S Register</td>
<td>Both (at professional level)</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Construction Institutions***</td>
<td>Both</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*proposed-details not yet available  
**in conjunction with Safety in Design Ltd (SiD). Available for use by industry.  
***includes RIBA

<table>
<thead>
<tr>
<th>Scheme Name</th>
<th>Planning Supervisor</th>
<th>Site/Office Audit included</th>
<th>Candidate assessed</th>
<th>Sector Restricted to Construction</th>
<th>Part of overall assessment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS</td>
<td>Yes</td>
<td>No</td>
<td>Yes+</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>IPS41</td>
<td>Yes</td>
<td>No</td>
<td>Yes++</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

+ construction qualifications, experience and open book multi-choice answer test  
++ construction qualifications, experience and 5 day examined course.

The two engineering schemes- ACE and CCNSG- are being reviewed by their sponsors to see where differences may be removed. ACE is primarily a skills competency assessment (via S/NVQs) but has limited associated trades. CCNSG is primarily a safety passport. There is mutual recognition between these schemes on the health and safety elements.

These initiatives (Tables 11 and 12) are to be applauded as much effort and investment has gone into creating the schemes and to provide a much needed service; a number have been derived using voluntary input. At present however there is only limited mutual recognition.

From data obtained from existing schemes the cost to registrants (Contractors and Designers) appears to be in the order of £400-900 depending upon size. There is often a renewal fee involved in addition to the joining fee.

5.3 PUBLIC SECTOR SCHEMES

Those schemes that operate in the public sector have been obliged to have regard to the requirements of EU Directive in respect of open competition and free trade. This also means that specific schemes cannot be quoted to the exclusion of other means of demonstrating competency.

As mentioned in Section 1.5 not all public sector schemes work to the same definition of competence. As part of this study a meeting was held between DTi, ODPM, OGC and HSE at the request of the Author, to identify whether the differences could be removed. Although all parties agreed on the need to work together to resolve the matter, further work remains.

41 Institution of Planning Supervisors
5.4 ACCREDITATION ISSUES

If such schemes (noted in Table 11 and 12) and others are to pronounce organisations and individuals ‘competent’ then, in keeping with a need for transparency and accountability, those that involve peer assessment, may need to develop an accepted framework which allows autonomy to be retained whilst providing an independently assessed quality assured output.

Although there are formalised routes of accreditation utilising UKAS, accreditation can also be achieved through the use of other peer groups, or similar, providing the means of assessment and standards of assessors, are adequate.

In this respect it is worth reviewing the process used for the training of forklift truck drivers as there are some aspects to this which may be of use in resolving the question of quality assurance. The ACOP for operator training of forklift truck drivers includes reference to 5 accreditation bodies, recognised by HSC to be competent to operate voluntary accreditation schemes. The ACOP stresses that such schemes are not mandatory but recognition by the Commission is intended to help set and maintain professional standards. The accredited bodies ensure that the training offered to drivers is of an adequate standard, and delivered by competent trainers. APS has followed this route and in February 2005 announced its first validated and accredited training provider. This is a major step forward, and is believed to be a unique provision in the construction industry. This is discussed further below, and in Chapter 10.

5.5 TRAINING

The provision of appropriate training to recognised standards, and with accompanying assessment, is an important part of achieving individual competency. It will not be possible to achieve the goal of a fully qualified workforce if sufficient training, of the appropriate quality is unavailable. This is considered below under three heads viz: apprenticeships, construction phase related training, and design led training.

**Apprenticeships**: As noted in Chapter 4 there is a significant shortage of apprenticeship places as a consequence of the high level of self-employed labour. It is understood that initiatives are being put into place to circumvent this problem (eg via the major companies of the House Builders Federation and the MCG) but it remains an important issue, fundamental to the well being of the future industry.

**Constructor related training**: There is a range of courses for operative, supervisory or managerial levels. These are frequently badged by recognised organisations eg CITB, IOSH, NEBOSH, or are delivered in connection with specific schemes eg CCNSG Passport, EPIC (Quarry work), or the fork lift drivers training. In addition there is an established matrix of NVQ/SVQs which come with their own quality assured standard. The point has been made to the Author however that the smaller companies have difficulty in providing the requisite level of management experience at NVQ3 level.

The training of rider-operated lift trucks (also mentioned above in respect of accreditation) provides an interesting model in terms of ensuring adequacy of content and delivery of training. The HSC recognised competent accreditation bodies are able to train and monitor the trainers themselves. Suggested training course content is provided in the document. It is not

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42 UK Accreditation Service
43 Rider-operated lift trucks: Operator training L117 from HSE Books
44 Association for Project Safety
mandatory to use a trainer that has been accredited in this fashion so long as the user is satisfied as to the alternative route adopted.

A relevant initiative has also taken place in respect of training provision for work at height (www.acwaht.org.uk). A committee of interested industry parties, together with HSE, has formulated a strategy in order to obtain consistency and appropriate standards of training in this field. This has led to the drafting of a British Standard (BS8485) which is due for public consultation shortly. The Committee is also developing an agreed training syllabus.

The Network Rail SENTINEL system (described in Appendix 7) has a formalised system of accredited training providers for safety critical work (generally trackside). The cost of the scheme is paid for by those organisations using it. All training is delivered to a national syllabus which is provided by Network Rail.

**Designer related training:** In this sector, there is currently no recognised benchmark or other quantitative means of ascertaining the adequacy of training other than by general reputation of the training provider or client assessment of the course description and programme. Neither of these allow for consistency of approach, in a competitive market. A specific example of a proposed course however that has aligned itself with the CIC/SiD ‘safety in design’ initiative (see Appendix 7) is the CITB Designer course, mentioned in Table 13. This has been developed to be compatible with learning aims being promoted by CIC/SiD which were launched in April 2005 (http://www.cic.org.uk/activities/sid.shtml). This is the first attempt to provide a benchmarked provision for designer training and is therefore welcomed; it is hoped that others will follow.

**Planning Supervisor training:** The Author is not aware of any benchmarked or accredited training provision, apart from:

- that recently facilitated by the Association for Project safety (APS) utilising an accreditation scheme,
- The Institution of Planning Supervisors (IPS) endorsed course run by C-MIST. This is understood to run 2-3 times a year.

Appendix 8 contains further details of both organisations.

The APS model is worthy of examination for use on Co-ordinator or Designer related training by accredited training organisations. The syllabus is set out in terms of headline objectives, to set standards using ‘Ability to’ statements.

The current situation in terms of duty holders therefore is as indicated in Table 13.

**General:** The National Examination Board in Occupational Safety and Health (NEBOSH http://www.nebosh.org.uk/) is worthy of a specific mention as an independent awarding body arising originally from the Robens Report. Its Advisory Committee comprises nominees from the Health and Safety Executive (HSE), the Department for Education and Skills (DfES), the Employment National Training Organisation (ENTO), the Environment Agency, the National Federation of Health and Safety Groups, the British Institute of Occupational Hygienists (BIOH), the Institution of Occupational Safety and Health (IOSH), the Confederation of British Industry (CBI), the Trades Union Congress (TUC), the British Chambers of Commerce (BCC), and programme organisers

Professionally qualified examiners, moderators and assessors, overseen by an Advisory Committee from national institutions, ensure that NEBOSH qualifications maintain a

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45 which led to the Health and Safety at Work Act.
reputation for excellence. NEBOSH has been given accreditation by the government's Qualifications and Curriculum Authority (QCA).

NEBOSH provides awards at Certificate and Diploma level and hence although these are valuable provisions, they are not geared towards mainstream ‘CPD’ type training.

Table 13 Training Standards

<table>
<thead>
<tr>
<th>Category</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Designer</td>
<td>Historically, no recognised or benchmark standards and generally no certain means of assessing the adequacy of a course from its literature. The CITB is in the process of developing a two day modularised designer course incorporating the CIC/SiD Learning Aims.</td>
</tr>
<tr>
<td>Individual Manager/Supervisor (Contractor)</td>
<td>There are a number of courses which have an established pedigree eg Managing Safely (IOSH), Site Manager Safety Training Scheme (CITB)</td>
</tr>
<tr>
<td>Individual Operative/Trades person (Contractor)</td>
<td>These are well established either through the CITB, or one of the many sector/skill trade associations eg CCNSG, EPIC.</td>
</tr>
<tr>
<td>Planning Supervisor</td>
<td>Benchmark standards provided by APS for use by accredited trainers (Appendix 8). 5 day course run by C-MIST</td>
</tr>
</tbody>
</table>

Training organisations tend to manage themselves in one of two ways.

- Firstly by engaging lecturers who deliver their own courses but which are facilitated by the training organisation (eg Thomas Telford Training). Apart from a general overview of the course, and it being commercially viable, the lecturer is left to deliver to their own style and content.

- Secondly, by delivering a course derived by and delivered under the control of the training organisation itself, either through their own staff or by using contract staff working to their direction.

As noted in the table above however, in some cases is there no accepted standard or means of accreditation. Hence the manner in which Regulation 8 is dealt with and interpreted, is a matter for individual providers.

5.6 COMMENTARY

In the ideal world, or in a smaller less diverse industry, it would be the aim to have one overall ‘competency’ scheme to which everyone belonged.\(^{46}\) At an organisational/company level, this is clearly not feasible in the short term given the number of current schemes, and the investment made by individual scheme sponsors and their members. At an individual level, CSCS and the affiliated cards dominate the construction side of the industry and although government do not currently support CSCS to the exclusion of others\(^{47}\), and CSCS has its critics, it is the favoured option by the major industry players on the contracting side. Behind CSCS is a range of other card schemes\(^{48}\). On the design side, the institution route (also

\(^{46}\text{As recommended by Sir Michael Latham in ‘Constructing the Team’}\)

\(^{47}\text{See OGC PG10 ‘Achieving excellence in health and safety’ p4}\)

\(^{48}\text{http://www.citb.co.uk/cardschemes/whatcardschemesareavailable/}\)
with its critics) is the established manner by which competence is currently demonstrated. In respect of the planning supervisor, apart from the APS and IPS, there is no other widely accepted ‘competency scheme’ or standard.

Hence, whilst a unified scheme may not be immediately achievable (and is not necessarily essential to progression, as explained in Chapter 8), mutual recognition of individual schemes and pathways, where they meet minimum agreed standards, is essential, and a key element to the removal of duplication and wasted effort. In the Author’s view the industry cannot progress and improve as it needs to do, whilst the question of competency in particular is considered in a fragmented manner. The Author is pleased to note that some mutual recognition is already happening, as observed in Appendix 7. The proposals set out in Chapter 10 however will remove the need for mutual recognition of this type.

In respect of planning supervisors (Co-ordinators) however there would be advantage if APS and IPS could combine, keeping the best aspects of both organisations.

It is noteworthy that CHAS and CSCS both report that a significant percentage of applicants’ submissions to their schemes fail on the first occasion (CHAS, 17.5% in 2004, CSCS 14 % in respect of the health and safety test in 2004). CHAS believes that the SMEs in particular have to be brought in gradually, as for some the step-change in working practices and procedures is too great to be taken in one step. This is an indication of the challenge; it is not a reason however for accepting the ‘incompetent’.
6. INTERVIEW AND DATA COLLECTION PROCESS

6.1 BACKGROUND

A key element of this commission was obtaining the views of the industry on ‘competency and resource’. These views would then be fed into the study conclusions and the derivation of the recommendations. Some of this data was already available from previous research (Appendices 4&5).

The agreed approach for this commission differed between Contractors and Designers, and Co-ordinators.

6.1.1 Contractors and Designers

The approach taken was to concentrate on the following categories of interested party, and to base the data gathering exercise on face to face interviews supplemented by literature and website searches:

**Table 14 Organisations approached**

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Those organisations which engage others</td>
<td>Network Rail, ASDA</td>
</tr>
<tr>
<td>Those organisations which are engaged by others</td>
<td>Association of Project Safety (APS)</td>
</tr>
<tr>
<td>Those organisations which engage and respond</td>
<td>FMB</td>
</tr>
<tr>
<td>Specific companies that engage or respond</td>
<td>MCG, SECA, (Most of the industry umbrella bodies)</td>
</tr>
<tr>
<td>Those groups with an interest</td>
<td>B&amp;Q</td>
</tr>
<tr>
<td>Those running existing ‘competency’ schemes</td>
<td>T&amp;GWU</td>
</tr>
<tr>
<td></td>
<td>CHAS</td>
</tr>
<tr>
<td></td>
<td>ConstructionLine</td>
</tr>
</tbody>
</table>

Some 30 meetings were conducted over a period of 11 months, covering the above categories. This approach proved to be very productive as it allowed for maximum flexibility, and for the discussion to widen out to capture associated issues. A number of those visited made positive efforts to keep the Author informed of subsequent matters of relevance and made reciprocal requests in order that they were informed of current thinking.

In addition to the meetings, written requests for inputs were made to construction institutions and others.
Contact was also made with other bodies and individuals, not envisaged when setting up the project; these contacts proved very productive, and included:

Table 15 Additional contacts

<table>
<thead>
<tr>
<th>Description/Location</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Ireland</td>
<td>HSE (NI)</td>
</tr>
<tr>
<td></td>
<td>Construction Employers Federation</td>
</tr>
<tr>
<td>Irish Republic</td>
<td>Health and Safety Authority</td>
</tr>
<tr>
<td>USA</td>
<td>OSHA (through the web)</td>
</tr>
<tr>
<td>Cabinet Office</td>
<td>Regulatory Impact Unit</td>
</tr>
<tr>
<td>Industry self-help groups</td>
<td>NW CDM Contact Group</td>
</tr>
<tr>
<td>DTi</td>
<td>Constructionline and Trust Mark schemes</td>
</tr>
<tr>
<td>Association of British Insurers</td>
<td>Making the Market Work</td>
</tr>
</tbody>
</table>

Apart from some limited exceptions, individual design or contracting companies were not approached as it was believed that mailed enquiries would generate poor results. Telephone surveys were considered inflexible and impersonal. In the event however, as a consequence of general publicity\(^{49}\), a number of individuals did ask to respond to a questionnaire on behalf of organisations, and some 17 were returned.

The Specialist Engineering Contractors (SEC) Group specifically asked to discuss the proposals for corporate competence. Two meetings were held with them, the Electrical Contractors’ Association (ECA) and the Construction Confederation. These were very fruitful and significant support was achieved for the concept of the ‘Core Criteria’, the concept of which had already been developed by these organisations.

6.1.2 Co-ordinators

In respect of Co-ordinators, a limited number of organisations were approached in view of the fact that the Consultative Document had already provided the opportunity for industry to express its opinion. Interviews were conducted with:

Table 16 Parties met during research into the Co-ordinator role

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS</td>
<td>In view of their dominant position as representatives of planning supervisors</td>
</tr>
<tr>
<td>Construction Clients Group</td>
<td>In view of the importance of Clients in the construction process and appointment of Co-ordinators</td>
</tr>
<tr>
<td>CIC</td>
<td>In view of their position representing the institutions, and hence Designers, from whose ranks it is thought the majority of planning supervisors originate.</td>
</tr>
<tr>
<td>Constructing Excellence</td>
<td>As a key facilitating body, representing best practice</td>
</tr>
</tbody>
</table>

Contact was also made with the IPS by phone and letter.

6.2 THE INTERVIEW

The ‘interviews’ for Contractors and Designers were conducted in an informal manner around a predetermined set of queries. It was found however that as many of those approached had a particular interest or experience, it was this that was explored in some depth. Not all questions turned out to be relevant to the interviewee.

\(^{49}\) For example in the Construction Manager Nov/Dec 2004, and a summary of the project on the HSE website.
Through these interviews however, and the information gathered as a consequence, a comprehensive picture has been built up of how ‘competency and resource’ is currently handled, the concerns of the interviewee, and their aspirations for the future.

It was found that several assessment schemes were in place, being developed or amended (as noted in Appendix 7) and these were explored in some depth as they reflected the organisation’s view on this topic area.

For Co-ordinators, an analysis was undertaken of the consultation returns, supplemented by a limited number of meetings with key parties (See Appendix 1 and Table 16).

The issues arising from the interviews are discussed in Chapter 7 and Appendix 8.

6.3 OTHER SOURCES OF DATA

Data was also obtained from HSE literature. This related to general practice eg lift truck training, construction industry advice, and also to other industries where lessons could be learned eg Rail and Quarrying. Details of legislation and best practice were also obtained from Ireland to complement the discussions mentioned above.

6.4 FOCUS GROUPS

Two focus group meetings were held- in Manchester and in London- in order to discuss issues relating to Contractors and Designers. These proved to be very useful in raising items of relevance and discussing the preliminary report recommendations. Those organisations that were represented are scheduled in Appendix 1. The outputs from the meetings are discussed in Chapter 7.
7. OUTPUT FROM INTERVIEWS AND DATA COLLECTION

7.1 INTRODUCTION

The data collection phase included background research, from within the UK and elsewhere. This has provided a useful base on which to draw conclusions and build some recommendations.

Data was collected through meetings with a range of interested bodies, Focus Group meetings and available literature.

For the Co-ordinator role, the timing allowed use to be made of the comments received by HSE on the Consultative Document. The APS also conducted a comprehensive survey, the results of which were made available to the Author.

7.2 INTERVIEWS

The following paragraphs summarise the key issues raised by those interviewed:

Do we need to emphasise competency and resource

As noted in the Introduction there was no significant voice raised against the need for ensuring those designers and contractors engaged on construction work are competent and have adequate resource to undertake the task. This is fortunate as, notwithstanding the requirements of CDM, the law requires such an approach. The background documents scheduled in the Appendices also give strong emphasis and support to the need for competence and a fully qualified workforce.

Level playing field:
The view was expressed by a number of those interviewed, but specifically those representing the SME population, that any requirement should be applied fairly across the board. There was clearly a real concern that investment and effort would be wasted as a result of some clients accepting offers from those organisations which were not ‘competent or adequately resourced’. This applies to both public and private sectors; the former is commented on again below. It was clear that in a commercial environment, and with the diversity of clients involved, there needs to be some form of control and incentive.

Government and Local Authority Clients: Concern was expressed that many government clients, but particularly local authorities:

- Did not support best practice procurement,
- Adopted health and safety criteria during the pre-qualification process, but then dropped them at the tender stage,
- Appointed on the basis of lowest price.
- Had insufficient expertise in this area

It was stated that there was disenchantment with this situation given the investment made by member companies, and the fact that ‘unqualified’ contractors continued to be used i.e. there was no level playing field. A survey of local authorities by SEC provides a bleak picture of current practice. It concludes that ‘...a significant number of local authorities were not treating

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50 And the brief did not include for such an eventuality.
51 Construction Procurement-is local government applying best value’ August 03
health and safety as an important factor in the awarding of contracts.’ and ‘...it would appear that emphasis on lowest price could exclude firms which have a greater commitment to health and safety by investing in the necessary training and effective management of health and safety risks.’

Given the fact that the public sector is the country’s largest client, the disparity between what is preached at the centre, and what happens on the ground, is something that has to be comprehensively tackled.

Consistency:
It was apparent that one of the most frustrating aspects of current assessment is the variation in information requested. This often prevents a standard response being adopted, and requires further research and effort on the part of those responding. It appears that a number of contractors have to pay to join more than one pre-qualification scheme because different clients operate in isolation and the schemes do not have mutual recognition agreements.

According to some, another detrimental aspect to the achievement of consistency is the definition of ‘competency’ in schemes promoted by government eg Building Regulations Part P (Appendix 7). These schemes do not set out to determine competency under the Act, concentrating instead on other matters, but unfortunately could leave the impression that they do.

SMEs:
Several of those interviewed were concerned at specific issues associated with SMEs. These included:

- The provision of an attractive driver to encourage SMEs to ‘join in’ (notwithstanding the legal imperative)
- The need to set the threshold at a level that would not prove to be an insurmountable barrier
- The need for clear guidance

The first bullet particularly applies to those SMEs working in areas such as the small commercial and domestic market where clients are currently unlikely to demand evidence of competence.

Self Certification and Audit:
There were mixed feelings in respect of self certification of competency. The majority of those expressing a view however were, on balance, against the concept on the grounds that the industry could not be trusted to self regulate given its diversity and method of working. The need for an independent audit was recognised as being a necessary component of a credible scheme. This very much reinforces the view expressed by those responding to the Revitalising Health and Safety consultation (Appendix 4) and with OGC (Appendix 6). Some were concerned that the competency of the auditors should be assured in order to obtain consistency across the industry.

Use of Assessment Schemes
Some of those interviewed had reservations in respect of ‘third party’ schemes such as CHAS or ConstructionLine. These were not so much in respect of the schemes themselves but more to do with a lack of control over the process and their remoteness. It appeared that there was also differing views as to the questions that ought to be asked which acted as a further disincentive to use them.

The need for mutual recognition between schemes however was universally agreed as being essential.
Core criteria
The concept of agreed ‘core criteria’ being used as basis on which to judge competency was widely welcomed as a means of moving forward in a pragmatic manner. This idea is in fact already developed in recent months by SEC, CC, CIC, and MCG in relation to standard formats for sub-contractors and Designers (Appendix 7). Concern was raised however in respect of the difficulty of obtaining buy-in from clients. Notwithstanding the support for core criteria, there was a strongly expressed wish for these to represent no more than the law requires and for any ‘best practice’ optional additions to be kept separate from this initiative.

The issues
The two key issues were seen as:

i) ensuring the means of assessment was consistent, and
ii) avoiding unnecessary repetition

These two issues can be considered separately as will be seen in Chapters 8 and 10.

Sub-Contracting
The prevalence of multi-layered sub contracting creates the potential for the discipline and benefits of regulated regimes and high standards to dissipate the further one progresses along the chain. On many projects there appears to be little control –contractually or otherwise- in ensuring that all those engaged are competent. Hence any schemes that are introduced must be organised such that they apply with equal rigour anywhere in the supply chain.

Formal Schemes
There was concern expressed in respect of the bureaucracy and cost of maintaining formal schemes such as those to OHSAS 18001. Although such schemes would satisfy any test of competency, it was clear that for SMEs in particular they were perceived as a burden.

Whilst there was general support for formal schemes, there was also a concern that these did not turn out to be money making exercises for those running them.

Drivers
The need for accepted drivers has been mentioned under ‘SMEs’. The interviews clearly demonstrated that this is a key issue; firstly as a means of justifying the investment and expense of establishing or joining a scheme, and secondly as a means of reassurance that those organisations and individuals who have not invested will be excluded from participating.

At present although some of the market has drivers in place- pressure for instance from knowledgeable and best practice clients- much of it does not. Work is acquired regardless of whether investment has been made. It is this inequality that has to be dealt with if scheme membership is to flourish.

Resource
This aspect gave rise to a range of views.

For some clients, for example the prison service and in the engineering industry, it was not usually an issue due to the extent of planning of works prior to commencement. Nonetheless, it was recognised that assessing time resource is fraught with practical difficulties; its validity is affected for example by programme, experience, working hours, use of software, use of overseas design facilities and delegation of design duties to others in the supply chain, all of which make a reasoned judgement difficult except in the extremes.
It is apparent from the interviews that although specific checks are often directed at sub contractors (by main contractors) this is more from a programme and planning perspective than from an explicit desire to satisfy the requirements of CDM\textsuperscript{52}. However it is also clear that in many instances sub-contractors suffer from late changes to programmes, delayed information and other interferences which often invalidate any previous pre-planning in respect of resources.

The interviews also revealed a practical problem associated with the assessment of resource under the current arrangements in that promises made at bid stage, in respect of persons of specified experience being placed on projects, were frequently broken when it came to award or commencement.

The view was expressed that action is required to include some form of check to avoid unacceptable pressures.

\textit{Payment for Services}
Notwithstanding the legal obligation on any party engaged to act in a safe manner, the fact is that a lack of adequate recompense is a disincentive to provide adequate competence or resource. It has always been so.

\textit{Design Issues}
The Author is aware of specific concerns relating to the control of risk emanating from unusual, complex or innovative design, or design related functions, and which can lead to failure (and hence risk to persons) if not adequately controlled. These inadequacies arise from a combination of factors but particularly involve competence and resource. There is a case for ensuring that the additional resources necessary to deal with these designs are identified at project commencement.

\textit{Planning Supervisor/Co-ordinator}
A survey conducted by the Association for Project Safety (APS) of its members indicated:

APS Question 14: Effectiveness of existing industry standards such as CHAS, ConstructionLine in terms of demonstrating H&S risk management competence. Approximately 70\% indicated that these would have little effectiveness for Contractors and Designers.

APS Question 16: 93\% of respondents indicated that Designers should be obliged to demonstrate competence in respect of H&S risk management.

APS Question 17: 93\% also thought that the ACOP or Guidance should indicate what would be adequate in terms of competency.

APS state that the returns were received from 14\% of the membership.

Enquiries undertaken by the IPS indicated that few clients reviewed the competency of those appointed to be planning supervisors.

The CIC considered that the APS should feature strongly in any proposals in view of its dominant and leading position within the industry. It was not thought that a route utilising CSCS was appropriate. CIC suggested that ConstructionSkills, or similar body, could develop a training course (as has been done for Designers-see Section 5.5) in order to establish a benchmarked standard. CIC supported the premise that if the functions of Co-ordinator were

\textsuperscript{52} Although this will often have the effect of achieving the latter.
divided between two or more bodies, each needed to be competent as if they were undertaking the entire role.

The Construction Clients’ group (CCG) were keen to see as few ‘registers’ as possible—ideally one register. They considered that some form of accredited training should be mandatory for all those individuals undertaking the Co-ordinator role. CCG also considered that the CSCS H&S test (for personal awareness) should be an integral part of the requirements.

7.3 FOCUS GROUP MEETINGS

The two meetings were well attended and produced some interesting comments, concerns and suggestions. Although the meetings were intended to discuss issues associated with Contractors and Designers, some points raised applied to Co-ordinators. Aspects additional to those already scheduled in the Report are given below:

Project Deadlines
A number of contributors expressed concern at the manner in which project start or completion dates were often held firm despite significant associated delays, increases in work or other disruptions. Examples included

- private sector retailers which considered the date of trading commencement to be immovable,
- public sector practice of maintaining dates in order not to lose financial year funding,
- grant funding which was conditional upon start/completion by stated dates.

In all these cases the effect of maintaining the fixed date on resource and safe work practices generally, in the event of project disruption, was often ignored by Clients. The view was expressed that team members which highlighted a problem (in terms of undertaking the work safely) would be penalised.\(^{53}\)

Advisory Committee for Training
Suggestions were made for an advisory committee on training as has been established for work at height and the training of fork-lift truck drivers. (Section 5.5)

Designer Training
The meetings accepted the need for improved training provision for designers in respect of accredited course content, assessed trainers and modular courses to allow knowledge to be acquired from several sources.

Establishing competence and resource
The point was well made that any analysis of competency and resource could only be a professional judgement based on a selected number of attributes; there was no ‘correct’ answer.

3\(^{rd}\) Party audit of schemes
A view was expressed that requiring assessment schemes to be 3\(^{rd}\) party audited was ‘gold plating’ and could not in any event be insisted on.

(Author’s note: 3\(^{rd}\) party accreditation is a recommendation. It is open to scheme providers to ignore this if they wish. It is suspected that the market will dictate in the long run.). Some were of the view that UKAS was bureaucratic and unwieldy.

\(^{53}\) It will be the responsibility of the Client (CDM\(^{206}\)), working with the Co-ordinator and others, to resolve this.
7.4 INDIVIDUAL QUESTIONNAIRES

Not all questionnaires were fully completed. However key points to emerge in terms of the trends in the answers were;

- The determining factors for engagement related to price as much as competency. Some of those engaged however stated that Clients ‘sometimes’ used the assessment as a meaningful differentiator.
- Those who considered that value was obtained via the system adopted were almost equally countered by those who did not.
- Most of those who responded were seeking a wider benefit than just ‘health and safety compliance’ eg compatible and quality engagement.
- A surprising number of respondents indicated that they did assess resource however of these some stated that the returns were of a generic nature.
- Most respondents were concerned at the cost and time of compiling returns.
- An encouraging number of respondents included ‘best practice’ issues within their questionnaires or returns.

Some pertinent comments included:

- It (being asked to justify competence) ensures that we train our workforce, analyse contracts after completion to ensure improvement and it pushes safety up the agenda.

- Strategy (is) influenced by pushing safety up the agenda. Value added because of review process and training.

- Bureaucratic nightmare because of the lack of consistency from clients/ planning supervisors.

- The process is far too repetitive; we have clients we are currently working with on numerous projects requesting the same information every time.

- A properly controlled and policed passport scheme similar to the SCATS card that requires a trade based two day course with a three year refresher. Too much emphasis has been placed on CSCS cards which simply isn’t a safety qualification.

7.5 CDM2006 CONSULTATIVE DOCUMENT OUTPUTS

The timing of the research into Co-ordinators’ competency and resource allowed a study of the Consultative Document returns. A large number of submissions were received on the subject of ‘competency’ with fewer on ‘resource’. Most of these returns provided general comments on competency, rather than specific comments directed at the planning supervisor or proposed Co-ordinator. There were a number of repeat returns.
Question 3 of the Consultative Document was ‘How can we (Industry and HSE) make it easier for people to assess appointees’ competence? The returns indicated the following categories of comment:

**Registers**
There appeared to be strong support for some form of registration of Co-ordinators. The proposed registers varied from a form of statutory register, to those operated by institutions, or organisations formed for that purpose eg APS. Mandatory membership was envisaged.

**Benchmarks/Certification**
There was similar support expressed for establishing recognised standards of competency, through benchmarks of certification. This reflected the fact that at present there is no widely accepted standard although a number of potential routes exist eg institution membership, APS, ICE Register, NEBOSH Construction Certificate.

**Graded Competence**
Some reference was made to the concept of declared competence being valid up to a certain project value or risk type.

**HSE backing**
It was considered by some that HSE should publicly give backing to one or more schemes so that the industry knew where it stood. The comment was made that HSE needed to clarify what they believed was adequate competency.

**Minimum Qualifications and Experience**
This was a common theme with a range of views. Minimum qualification standards included Institution membership (including MIOSH), APS and ICE Health and Safety Register membership, and holding a NEBOSH Construction Certificate. Minimum experience was linked by some respondents to the Approved Inspectors scheme as an example (5 years post qualification required).
8 CONCLUSIONS AND COMMENTARY: COMPETENCY

8.1 GENERAL

The weight of opinion from the study and from the various documents in Appendices 4-6 is strongly in favour of maintaining a requirement for the demonstration of competency. At the same time, however, it was considered essential that the means of assessing and ensuring competence must be fair, proportionate, and create a level playing field.

Whilst recognising the desire for ‘proportionality’, it is noted that the law only allows a limited relaxation in relation to the statutory requirements for those organisations employing less than 5 persons. Hence although one would expect the scale and complexity of management systems in place to deliver competence to vary significantly with size of organisation and exposure to risk, the basic ingredients should always feature. Guidance is required for the smaller organisation to demonstrate how this might be achieved.

References to competency in this ‘General’ section refer to both corporate and individual competency.

If a requirement for ‘competency’ is to be explicitly included within the new Regulations, then given the poor showing on this matter under the existing CDM Regulations, the manner in which it is defined, implemented and enforced is crucial. HSE will no doubt be aware that given the diversity of the industry, its fragmentation and the commercial pressures, any solution will only function if there is a general acceptance (ownership) by industry and the appropriate combination of judgement, incentive, enforcement and penalty.

Although the explicit aim is to satisfy the requirements of CDM\textsuperscript{2006} there also needs to be a clear parallel advantage to industry in terms of removal of trading barriers, reduction in cost, and improvements in competitiveness.

In order to improve the current situation it is considered essential to:

- Define what constitutes competency such that those complying with this may be assured they meet the requirements of the regulations,
- Allow organisations to demonstrate competency, through some form of accreditation, such that there is no need for unnecessary repetitive checks.
- Allow individuals to be judged against accepted benchmarks.

The definition of competency needs to be framed in such a manner that allows ready assessment and is transferable project to project (subject only to size and complexity). It is therefore proposed to move away from the approach taken in paragraphs 148, 183 and 230 d) and e) of the CDM\textsuperscript{2006} Consultative Document for example, and to concentrate on fundamental baseline issues\textsuperscript{54}. It is also necessary to create some certainty in this area in order to allow a greater degree of enforcement when necessary.

Definition and accreditation are covered in more detail in Sections 8.2 and 8.3 respectively.

It is apparent that government is a key player in this process. Given its role (DTi, ODPM in particular) and its position as the country’s largest client, it is concluded that no solution will work effectively without its full and pro-active support. OGC will also continue to play an

\textsuperscript{54} This is not to conclude that these issues are unimportant. It is that in order to develop a benchmark that allows standardisation of approach, some simplification is required.
important role by promoting improvements to project execution through the Common Minimum Standards (Section 4.15) and their publication PG10 in particular (Appendix 6).

At present a number of ‘competency’ schemes promoted by government work to a definition of competency that may not satisfy a test against HASWA. In order to avoid potential confusion and create a ‘joined up approach’ it is clearly desirable that government:

- works to deliver on its undertaking given at the Safety Summit in February 2005 and that this is reflected in central government, local government, agencies and other public sector driven clients or projects,
- works to remove inconsistencies between departments.

The recommendations set out later in this report are unlikely to significantly affect those organisations which already invest in appropriate management systems and training. It is likely however that the recommendations will particularly affect those organisations working on the smaller project size, and specifically in the domestic market, where at present lip service is often paid to competency. Some means needs to be found to assist these organisations to raise their standards.

Following the example set by the Quarry Regulations\textsuperscript{55}, and recognising the high risks involved in construction projects, the Author concurs with CDM\textsuperscript{2006}. This states that the requirement for competency should apply to all individuals involved in a project unless they are under the adequate supervision of a competent person. The Author concludes however that those acting as Co-ordinators should always be competent. In addition (but not in the CDM\textsuperscript{2006} document), and again from the same regulations, it should be a requirement that a sufficient number of persons with the requisite competence to perform tasks assigned to them are present (see Section 2.6).

It should therefore be the aim of industry overall to strive for a:

- regime that in due course ensures that no organisation works on a project without accredited competency.
- fully qualified workforce\textsuperscript{56}

The first bullet point cannot be insisted on; it is hoped that momentum will take it forward. The aim should be to achieve the second bullet point by 2010 but a more detailed analysis is required to identify the issues involved\textsuperscript{57}.

In order for the reduction in duplication, quantity of paperwork and variation in information requested to be achieved, it is necessary to standardise the process as far as possible. It is concluded that the optimum way in which this might be achieved across the industry is for corporate competency to be demonstrated through membership of competency assessment schemes, based on common standards (Core Criteria), whilst leaving the option open in the short term for those that engage others to determine competency for themselves if they wish, but preferably based on the same set of criteria that operate for formal schemes.

To ensure that assessment schemes meet and retain an adequate standard, and that membership does not become primarily dependent upon a form filling exercise, these schemes should be accredited and involve a site/office audit of the applicant (audits are recommended by OGC in Appendix 6)\textsuperscript{58}. Some of the existing industry schemes meet these

\textsuperscript{55} and adopted by the CDM\textsuperscript{2006} Consultative Document
\textsuperscript{56} this is intended as a holistic term to capture all those engaged in design and construction
\textsuperscript{57} and already in hand by CITB
\textsuperscript{58} the cost effectiveness of site audits for all is questioned by some. Should they be limited to principal contractors?
criteria at present. From the views expressed during the study it is concluded that self certification of competency is not appropriate at this time although it should not be ruled out for the future or in very specific instances.

Those organisations and individuals which do not make the investment in training, equipment and other aspects, in order to become competent, should, as far as possible, be excluded from work opportunities.

In order to encourage organisations to join such schemes there needs to be clear drivers and benefit, specifically in respect of SMEs which account for the largest proportion of businesses.

8.2 CLARIFYING THE DEFINITION OF COMPETENCY

To bring about an improvement in the current situation it is necessary to clarify the definition of competency and the means by which it may be demonstrated.

The following text is derived from a consideration of the many references made in Chapters 2, 3 and 4. The engager and the engaged ought to be able to refer to this proposed outcome with confidence.

8.2.1 Corporate Competence:
Corporate competence is defined, for the purposes of this Report, as:

‘A culture within an organisation that actively considers the health, safety and welfare of its own people, and of those that its work activities affect, with this being achieved through active management and participation of employees.’

It is concluded therefore that, for the purposes of CDM, an organisation (of whatever size) should be considered as meeting the requirements of Regulation 4 if it:

- has, implements and reviews, the Core Criteria discussed in Chapter 10 and set out in Appendix 10. These are taken from the base requirements of the Health and Safety at Work etc Act, as amplified in the Management of Health and Safety at Work Regulations (MHSWR); they require that all organisations, of whatever size, have a Policy, Organisation and Arrangements.
- has the ability to manage the type of work, and nature of hazard to be encountered.

As recognised by MHSWR the complexity and quantum of data necessary to satisfy the above will reflect the size of organisation and its exposure to risk. Organisations employing less than 5 persons need not write down the policy organisation or arrangements but will need to explain to auditors/engagers how they work within their scope and in particular communicate these to those they employ. Those organisations employing a few more will not be expected to produce reams of paperwork; indeed this is what we all are striving to avoid. The key to success is to ensure that what is set down is pertinent, targeted and understood. The auditors/engagers should look behind the paperwork to observe what actually happens.

The Core Criteria therefore are designed to assist in bringing some consistency to the process and in particular to the data presented. They have been constructed to mirror much of what has already been produced by CHAS, CIC and CC(Designer form) and SEC and MCG(Sub contractor form).

It follows from the above proposals that those organisations that are unable to demonstrate compliance with the Core Criteria, (and do not have an acceptable strategy, where permitted,
for correcting this), or are not able to manage the work envisaged, are not competent to undertake construction work.

The Author believes that organisations should be striving to improve their management of health and safety issues on a continuous basis and to be ‘best practice players’. Although this wish is not a statutory requirement, and hence cannot be made part of the Core Criteria, recommendations are made in Chapter 10 for voluntary performance indicators that would identify best practice. It is hoped that those engaging others will increasingly adopt these as a means of employing those organisations that have made the extra effort and as such are able to bring an enhanced service to a project.

Those engaging others (and their advisors) should ask for no more than that required by the Core Criteria, supplemented by a check on relevant work experience, in order to judge competency. Departure from this approach should only occur with some specific reason for doing so. Incentives to bring this about are discussed in Section 8.6. This approach is expected to reduce costs, avoid unnecessary bureaucracy, and allow SMEs in particular to compete on a fairer basis.

The means by which these Core Criteria may be utilised is described in Sections 8.7 and 8.8.

The ability to manage the work and expected hazards is expected to be determined through contact with previous clients, and project teams, and specifically through dialogue between the engager/engaged and other members of the team. This dialogue will be assisted by the data obtained under ‘Stage 2’ in Appendix 10.

In Northern Ireland it will shortly be mandatory (April 2006) for all organisations working on public sector works to be third party accredited through, for example, the Safe-T-Cert or Worksafe scheme. Safe-T-Cert requires a proportion of management to hold the IOSH ‘Safety for Senior Executives’ and for supervisors and managers to hold the CITB Site Managers Safety Training Certificate. This principle should apply in GB also and is reflected in the Core Criteria.

It is understood that a number of industry organisations are supportive of these Core Criteria.

8.2.2 Individual Competence:
For this study, we are considering three groups of individuals viz: Contractors, Designers and Co-ordinators. As noted in Section 1.10, these are functional definitions. It is unfortunate that in construction parlance a ‘contractor’ organisation is generally thought of as a ‘constructor’ but in fact is often also a ‘Designer’ and ‘planning supervisor’ (Co-ordinator). ‘Design’ organisations are rarely Contractors but will often fulfil the role of planning supervisor (Co-ordinator).

It should be emphasised that an individual’s competency is the combination of work related technical skills knowledge and ability, together with appropriate health and safety risk management knowledge and ability as indicated in Tables 17 and 18. The various elements cannot be separated and given their nature the assessment of individual competency can only be a judgement; there is no absolute answer.

It is concluded that the optimum textural definition of competency is that given in Section 3.3:

A competent person is a person who can demonstrate that they have sufficient professional or technical training, knowledge, actual experience and authority to enable them to:

- carry out their assigned duties at the level of responsibility allocated to them;
• understand any potential hazards related to the work (or equipment) under consideration;
• detect any technical defects or omissions in that work (or equipment), recognise any implications for health and safety caused by those defects or omissions, and be able to specify a remedial action to mitigate those implications.

It is taken as read that all individuals should normally have a basic language capability in English, sufficient to understand safety warnings and advice, given either in writing\(^{59}\), or by way of an oral instruction. They should also be capable of warning others. This matter is already of importance due to the number of foreign workers utilised on construction sites; it is likely to become more pressing, particularly in respect of Eastern European workers.

It is suggested that the practical definition of competency, as applied to individual Contractors, Designers and Co-ordinators, is interpreted as follows in respect of the following Sections 8.3, 8.4 and 8.5. In line with the definition given above, ‘competent’ individuals therefore should have the attributes outlined in Tables 17 (Contractors and Designers) and Table 18 (Co-ordinators).

**Table 17** Attributes of individual competency (Contractors and Designers)

<table>
<thead>
<tr>
<th>Element</th>
<th>Comment</th>
<th>Examples of attainment: Contractors and Designers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task knowledge</td>
<td>Appropriate for the tasks to be undertaken. May be technical or managerial.</td>
<td>Via Professional qualifications, S/NVQ, OSAT,</td>
</tr>
<tr>
<td>Health and safety knowledge</td>
<td>Sufficient to perform the task (1) safely, by identifying hazard and evaluating the risk in order to protect self and others, and to appreciate general background</td>
<td>Professional assessment (2), Passport (3), part of S/NVQ, appropriate CIC/SiD Learning Aims, CSCS H&amp;S Test (4)</td>
</tr>
<tr>
<td>Experience and ability</td>
<td>Sufficient to perform the task (1), (including where appropriate an appreciation of constructability), to recognise personal limitations, task related faults and errors and to identify appropriate actions.</td>
<td>Professional routes, direct workplace experience, part of S/NVQ, CIC/SiD Learning Standards.</td>
</tr>
</tbody>
</table>

Note

1. either design related task, or a construction related task
2. note comments in this respect outlined in Section 8.4
3. for example as Appendix 9 or CCNSG (Appendix 7)
4. personal safety knowledge

Some existing ‘schemes’ cover all of these elements eg CSCS, professional institution routes; others cover one or more eg ACE, CCNSG.

It is not possible in this report to define exactly what should feature in each element in Table 17: in general this is well established and should be resolved by reference to good practice, industry standards and a degree of sensible judgement.

The reader is reminded of the points made in the Introduction regarding individual competency (last paragraph of 1.2). Any industry-wide proposal will have its shortcomings; the perfect system does not exist. The proposals made in this report aim to take the best of

\(^{59}\) including visual prompts, in order not to disadvantage those who may not be able to read.
what we have in the expectation that momentum and various pressures will cause standards to rise.

8.2.3 **Team Competence**

CDM also talks of ‘team competence’ (para 232). This is taken to mean a grouping of organisations. Whilst this is a valid approach, in part, there are some important factors to consider:

- The suggested requirements for corporate competence must always apply to all organisations involved in the project. One cannot use these (ie the Core Criteria-Appendix 10) as transferable ‘credits’ to cover gaps elsewhere.
- It is possible that other shortfalls eg in experience or skills could be dealt with by assessing the team as a whole. The ability to do this however would be heavily influenced by the timings of the appointments, the contractual arrangements, duties specified and specifically the nature of the ‘local’ shortfall. Complex assumptions and arrangements are likely to fail in practice.

Hence the concept of ‘team competence’ is a valid and beneficial approach within the context of the points made above. The overall team review would be part of the ‘Stage 2’ review by the engager (See Section 4.16.1).

8.3 **CONTRACTORS AS INDIVIDUALS**

Any pathway that satisfies the requirements of Table 17, in relation to site based activity, should be an acceptable means of establishing competence but there is a clear advantage if the adopted route is a recognised industry standard.

CSCS (including affiliated cards) is the industry’s first attempt at universal, portable competence recognition, applicable to operatives and site management. As indicated in Appendix 7, it is by far the largest scheme in existence, and has strong government support (as noted in Section 4.13), but as also noted in Appendix 7 and discussed below, it has a number of significant issues still to be resolved.

Notwithstanding, in the Author’s view CSCS, and its affiliates, should be supported as a vehicle for demonstrating competence, with industry (in its widest sense) working to improve its relevance, robustness and effectiveness. It is worth repeating that the CSCS card is a skills card; it represents a measure of occupational competency, only part of which is in respect of health and safety risk management. It should be noted that obtaining a CSCS card is not intended to replace on-going training.

The Author wishes to emphasise however that the support for CSCS should not preclude other competent card schemes or indeed individual assessment. It is suggested however that CSCS has the potential to be recognised as the ‘umbrella’ providing a simple and understandable face to clients and others. It is more important in the short term to obtain a commonly accepted ‘base’ and mutual acceptance than it is to try to form a single scheme.

However, as noted above, there are a number of existing perceived shortcomings in CSCS which has lead some to question its current validity as a benchmark. These shortcomings include:

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60 Contractual arrangements are pertinent to the maintenance of safety- see the HSE report on Heathrow tunnel collapse. It is worth remembering also that risk thrives on interfaces.

61 ie across construction as a whole

62 Some of which are already affiliated to CSCS
i) the issue of cards to those who have attained the card through ‘grandfather rights’, or industry accreditation, neither of which are seen as rigorous as the NVQ route. Although both these routes had been closed to new entrants, recent announcements indicate that grandfather rights are being opened up again, albeit for understandable reasons. The existing legacy will be with the industry for some years however.

ii) the reported failure of some principal contractors to implement an effective control procedure to ensure that all that should have cards do so.

iii) whether the scheme has the capability of encompassing the whole workforce within a reasonable timescale (noting the % of self employed) and the current lack of penetration into key skill areas.

iv) the nature of the ‘health and safety’ test and the exclusion of alternatives,

v) the disparity between those registering, and those completing their NVQ

vi) a lack of perceived transparency of certain aspects in the operation of CSCS

The first concern is recognised but we have to start somewhere; no solution will be perfect in such a diverse and casual industry. For this purpose, it is proposed that all CSCS card holders are accepted for the purposes of this exercise. Notwithstanding, there needs to be a clear strategy for ‘closing the gaps’ over a specified period and for re-evaluation of card holders after a period of time. These issues are a significant concern. The second point is a site management issue and cannot be resolved by this study other than by drawing it to the attention of others. It is clearly important however that for this process to have credibility, there must be an assurance that it will be policed adequately.

The third and last points should be resolved by urgent demonstration by CSCS and CITB, as appropriate, for the benefit of industry overall. This will allow trust and support to rise across the industry.

In respect of the fourth point, it is hoped that over time CSCS will enhance the touch screen health and safety test, by including broader and more searching examination (although the current failure rate does demonstrate that it is not an automatic entry). It is important to recognise however that this test is related to personal site safety, and care of others (applicable to all).

The competence of individual contracting staff (management and workforce) therefore should be measured by the attainment of a CSCS or equivalent card, with a view to acquisition becoming compulsory for anyone working on a construction site or visiting it on a regular basis. This general approach supports the views expressed at the Safety Summit (see Section 4.10) and OGC (Appendix 6). It also aligns with the stance taken in the Irish Republic whereby all those on site have to be in possession of a Safe Pass Certificate (and the Irish equivalent of CSCS for certain designated tasks).

8.4 DESIGNERS AS INDIVIDUALS

Unlike ‘Contractors’ there is currently no obvious single ‘ticket’ by which all Designers could be simply judged. It is suggested therefore that the elements of competency outlined in Table 17 could be demonstrated through:

- Membership of a construction institution eg CIBSE, ICE, IEE, IMechE, IStructE, RIBA, CIAT or
- Holding an appropriate design S/NVQ and on going validation, or

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63 as evidenced by very poor recent press regarding CSCS finances and relationship with CITB. See however Appendix 7 for action taken by way of correction.

64 This does not remove the responsibility of the employer for ensuring that the actual persons used on a specific task are competent.
• Designer’s CSCS card,
• Individual assessment.

This requirement should apply to anyone having a significant influence over the design and may include therefore Board members and senior management. Those who only occasionally become involved in design, and who do not meet one of the qualifying criteria, would need to be under the supervision of a competent designer.

Currently these proposals warrant some comment:

**Bullet 1:** A number of criticisms have been levelled (indirectly) at the institutions in respect of the lack of knowledge and ability of some of their members, and their membership procedure. In addition, the institutions do not yet have robust methods for validating lifelong competence. However it is clear that considerable efforts are being made by institutions to enhance their procedures (See Appendix 8) in order to meet these shortfalls. These changes will not happen overnight but in line with the conclusions reached for individual contractors, and given the commitment received from some institutions by the Author, it is concluded that this route should be considered the prime pathway, subject to the concerns being addressed within a reasonable timescale.

**Bullet 2:** It is not evident that any designers hold an appropriate NVQ and this is unlikely to change in the near future. The relevant engineering NVQ (civil and structural engineering design) has lapsed as a consequence of this lack of take-up. Any S/NVQ route must encompass a holistic approach of design to include, for example, an appreciation of constructability. This is not a realistic pathway at present.

**Bullet 3:** The ‘Designers’ card is not currently available as the NVQ has lapsed. A managers/supervisors card is currently available for those belonging to some institutions as the NVQ requirement has been mapped against the professional route. There has been mention of CITB developing a new ‘designers card’ but no details are available.

**Bullet 4:** Individual assessment, for those who are not members of an institution nor held an NVQ, would be made against the criteria of Table 17 using established routes as benchmarks.

All these options need to have regard to the appropriate CIC/SiD Learning Aims (See Appendix 7).

In all cases it will be necessary for individuals to take the CSCS touch screen test, or its equivalent, in order to test for site based personal safety knowledge. However it would be inappropriate for this test to be used to test for ‘design’ competence.

These various issues will require resolution if competence of designers is to be kept to a simple format.

As noted in Section 4.1 it is difficult to establish how many designers are outside the membership of the design institutions. They present a potential problem (except for those engagers willing to assess competence on a one off basis as noted in the last bullet point above) and the consequence of this proposal is that they may find it difficult to demonstrate ‘competence’ without making some concerted effort to adapt to a recognised route.

Although the adoption of a CSCS ‘Designers’ card, as noted in the penultimate bullet point above, appears an attractive option, as it means that a card system (incorporating equivalent cards as required) is the universal measure of competence of Designers across the industry, it would in fact be argued by many that it is an unnecessary addition and variation from the well understood professional pathway route administered via the institutions. Hence, providing the

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65 HSE, Research reports 218 and 275; Press Release E234.03A, November 2003.
66 Civil and Structural Engineering Design
institutions deliver in respect of the current perceived deficiencies, membership of a design institution should be the accepted standard. It may be however that Designers need to possess a ‘visitors card’ as a ready administrative means of identifying their professional route skill base (supplemented only by the test of personal safety knowledge) to the Principal Contractor at the site gate, Clients and Co-ordinators.

8.5 CO-ORDINATORS AS INDIVIDUALS

8.5.1 General issues
Whereas individual Contractors and Designers may be categorised in terms of established pathways and standards (as set out in Table 17 and in Sections 8.3 and 8.4), there are less well established requirements for Co-ordinators (or the existing planning supervisor). Those discharging the function under Regulation 13 of CDM need many of the necessary competencies of Designers to do so; it is an extension of the established role. In the Author’s view the Co-ordinator should be seen as an integrated member of the team with these common competencies but specifically ‘added knowledge’ in respect of health and safety risk matters, compared to Designers as a whole.

The Author has considered whether the required ‘levels of attainment’ need to differentiate between small projects, and those of greater size or complexity. At first glance this would appear reasonable and proportionate; however given the fact that the primary causes of death, injury and ill health relate to items present on all projects, and that small projects are often less well controlled than larger ones, it is concluded that the competencies required should be the same. The law does not differentiate between projects of different size. The Guidance talks of the Co-ordinator being a ‘key health and safety advisor’. This requires a high level competency.

The implications of this approach on the existing pool of planning supervisors who might intend to migrate across to provision of the Co-ordinator functions cannot be known with any certainty. A number of planning supervisors currently operating at the small project end of the market may find that the competency benchmarks are now set at a higher level than they have been used to demonstrating. It is considered important however to set the standards for the Co-ordinator function at the appropriate level, matching the demands of Table 6.

8.5.2 Derivation of Competencies
The Co-ordinator requires good inter-personal skills and a sound working knowledge of those matters illustrated in Table 18.

Although it is permitted for the functions of the Co-ordinator to be distributed amongst a number of organisations or individuals, it is not considered appropriate to sub-divide the requisite competencies depending upon the functions allocated. In the Author’s view, this would be a recipe for confusion and unmanageable complexity.

Hence anyone undertaking a Co-ordinator function needs to be competent across the full range of functions.

The stipulation of ‘Chartered’ status in Table 18 is because the range of skills outlined in Table 6 includes elements that would normally fall within the province of a Chartered professional, rather than other professional grades such as ‘Incorporated’. As noted in Section 10.3 however this is not intended to imply that all other professionals are insufficiently competent to undertake the role. The ‘exceptional’ candidate route or an assessed entrance to the register would be available.
Table 18 Attributes of individual competency (Co-ordinators)

<table>
<thead>
<tr>
<th>Element (as Table 17)</th>
<th>Comment (as Table 17)</th>
<th>Sub Element (from 4.15.1)</th>
<th>Examples of Attainment (Co-ordinators)</th>
</tr>
</thead>
</table>
| Task knowledge        | Appropriate for the tasks to be undertaken. May be technical or managerial. | The design process            | Professionally Qualified to Chartered level (Note 1)  
At least 10 years experience on projects with comparable hazards and complexity, and procurement routes, of which 5 years should be post qualification. |
|                       |                       | Other aspects of planning and preparation for construction work | Project involvement for at least 10 years |
| Health and safety knowledge | Sufficient to perform the task safely, by identifying hazard and evaluating the risk in order to protect self and others, and to appreciate general background | Site processes Health and safety in construction | Minimum period of 12 months working on sites of comparable complexity  
Validated CPD in this field (Note 2)  
and typical additional qualification eg: (Note 3)  
- NEBOSH Construction Certificate,  
- Member of H&S Register administered by the ICE (Note 4),  
- Membership of IPS,  
- Fellowship of APS |
| Experience and ability | Sufficient to perform the task, (including where appropriate an appreciation of constructability), to recognise personal limitations, task related faults and errors and to identify appropriate actions. | | At least 10 years experience on projects with comparable hazards and complexity, and procurement routes, of which 5 years should be post qualification |

Note 1  Chartered membership of a recognised construction related institution. See also last paragraph of 8.5.2
Note 2  For current professionals this needs to include at least 3 days of appropriate health and safety related training within the last 2 years and to have included a general ‘health and safety’ course with a construction bias, and a ‘planning supervisor’ course (see Section 8.5.3).
Note 3  At present there are some differences between the identified examples of ‘additional qualifications’ in terms of rigour. These will need further consideration.
Note 4  Open to any member of a construction related institution.
8.5.3 **CPD Requirements**

For those undertaking the role of Co-ordinator (and indeed the existing planning supervisor), regardless of which CDM Regulation 13 function is allocated to them (see Appendix 2), it is considered that the individual should be expected to demonstrate on going CPD relevant to the overall role67. This should include the requirement to continue an on going relevant involvement in project work. The Author considers that the approach taken by the Institution of Occupational Safety and Health in respect of CPD is an appropriate model for consideration in the first instance. It is also considered that all Co-ordinators should have attended an industry developed ‘Co-ordinator’ training course, set up and administered as described in Section 8.9. There may need to be some flexibility in this respect in view of the finite capacity of the training market.

8.6 **DEMONSTRATION OF COMPETENCE ON APPOINTMENT OR ENGAGEMENT**

As explained in Section 3.1.3, if the project is below the stated trigger levels (ie usually less than 30 days construction phase) there will be no Co-ordinator available to advise and assist the Client in deciding whether the competency levels proposed by Contractors and Designers are reasonable. In these cases there is a risk that many Clients will not bother. When appointing Co-ordinators many Clients will not have suitable advice to hand, regardless of the project size.

Although Contractors, Designers and Co-ordinators have a responsibility to ensure their own competency (Appendix 2 Regulation 4), and this should be emphasised, the Author does not believe that this can be used as the sole check, and specifically so for projects at the lower end of the scale.

This issue does not apply to sub-Contractors/Designers as they are engaged by those who understand the construction industry, are capable of making judgements in respect of competency and will be expected to do so.

8.6.1 **Contractors and Designers**

Contractors and Designers have an obligation to advise the Client of the latter’s duties. It is suggested that the ACOP specifically requires a Contractor or Designer to advise the Client and other engagers of the options regarding the assessment of competency, as set out in the recommendations of this report. It is likely that most Clients/engagers will opt for the easy route of relying on competency scheme membership, for example, rather than assess it themselves. A written record should be made of the notification to the Client.

8.6.2 **Co-ordinators**

There are two identified options as to how competence could be demonstrated by the Co-ordinator:

- Through self certification. Co-ordinators ought to be able to present the Client with a statement that, if professionally scrutinised, would clearly demonstrate their competency at corporate and individual levels. Professional or large knowledgeable Clients should demand this in any event.
- Through membership of an accredited ‘competency assessment scheme’ in respect of corporate competency, and membership of a ‘register’ for individual competency.

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67 If the recommendations under Section 8.4 are implemented, membership of an institution will mean that general construction CPD will take place as a matter of routine.
It is considered that, given the essential need to ensure the competence of those undertaking the functions associated with this role, and the wide criticism directed at many of those undertaking the existing planning supervisor role, that reliance on self-certification is unsatisfactory. Hence it is concluded that all individuals involved in the functions scheduled in Regulation 13 should be required to demonstrate competence through membership of an accredited register as is the case for Approved Inspectors, Certified Structural Engineers, Panel Engineers, and others. Competency schemes for individuals are discussed in Section 8.8. Note that membership of such a register could be used:

- As a means of being tested for adequate health and safety knowledge, (as happens at present for the APS and ICE H&S register), and/or
- As a means of readily demonstrating to a Client that an individual meets all the requirements of Table 18.

In the latter case, there would be no need for an examined entrance to the register if an applicant already had demonstrable health and safety knowledge via, for example, a NEBOSH construction certificate and had attended an industry approved Co-ordinator course.

It will be necessary for industry to prepare itself for this requirement ahead of the date at which CDM2006 comes into force.

8.7 COMPETENCE ASSESSMENT SCHEMES FOR ORGANISATIONS

It is concluded that the long term aim should be for compliance with Core Criteria to be demonstrated via membership of accredited competency assessment schemes. It is hoped that this will come about through the stated aims of the ‘Common Minimum Standards’ (See Section 4.15) for the public sector, market forces and a general acceptance of its benefits for all, as it will not be practicable to legislate on this (But see also the Scottish model based around the CLE-Appendix 7). These schemes would avoid the need for engagers to repeat base checks, whilst still allowing engagers the freedom to make specific enquiries on other matters.

In the short-term it is unrealistic to expect the industry to operate around a single pre-qualification scheme, as advocated in Constructing the Team utilised in Northern Ireland via, for example, the Safe-T-Cert or Worksafe schemes. Although this remains a viable long term aim it is not considered essential or necessarily desirable in view of the wish of many industry bodies to retain independence and represent their members. Any proposals therefore should accommodate existing schemes, providing they meet the stated minimum standards, and allow for individual assessment.

Schemes should aim to satisfy the recommendations for Stage 1 (See Section 4.16.1) as represented by the ‘Core Criteria’ with the engager completing Stage 2 at the appropriate time.

All schemes should be validated to demonstrate that they meet minimum requirements, as described in Chapter 10 and Appendix 10. In order to achieve the requisite level of credibility, and in line with the requirements of some existing schemes, it is concluded that this be achieved through an audit by accredited third parties. Schemes should also require re-evaluation of their members at periodic intervals although it is appreciated that this cannot be insisted upon. There may be merit in HSE promoting liaison between validation bodies, to ensure consistency between schemes (but only in respect of the application of the Core Criteria). Auditors for the above roles need to be competent in health and safety matters and

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68 at the time of writing some 600 organisations have registered. 100 are accredited
69 UKAS or similar
auditing, as well as having adequate construction sector experience (as is the requirement for the Safe-T-Cert scheme adopted in Northern Ireland-Appendix 7).

Importantly, reciprocal recognition between schemes will not be necessary, in respect of competency, as membership of any accredited scheme will indicate competence, subject only to the inclusion of a Stage 2 check by the engager.

Every effort should be made to minimise the cost to participating organisations.

Those engaging others should not have to ask for any information beyond that set out in the Core Criteria (Chapter 10) apart from data on specialist matters eg trackside work for Network Rail, and on general experience (Stage 2 in Section 4.16.1) to cover the specifics of the work in question. This is a fundamental concept of the recommendations of this report.

There is no reason in principle why consultancy (design) organisations, or those offering the Co-ordinator role, may not be assessed, in respect of the Core Criteria, via established schemes offered by contractor trade organisations.

Pending the establishment of sufficient schemes, and time for those organisations that wish to become members to do so, competency should continue to be judged on a one off basis, by the engaging party. In this case however the test of competence should be against the Core Criteria (outlined in Appendix 10) and not to an arbitrary client or professional advisor derived test. This can commence immediately.

8.8 COMPETENCE/PASSPORT SCHEMES FOR INDIVIDUALS

8.8.1 General
Appendix 7 illustrates a number of different competency schemes, or safety passports operating throughout the industry- defined in its broadest sense. Examples include CSCS and CCNSG. Although there is some degree of co-operation and mutual recognition, this would benefit from further attention. For example CSCS has announced that from July 2005 it will no longer be possible to use the CCNSG passport as an alternative to the CSCS health and safety test. This creates a situation where two of the largest schemes do not recognise major components of each other’s scheme. Although a single industry scheme may be the long term objective, bringing the advantage of both scale and simplicity, it is concluded that every effort should be made in the short to medium term to recognise the investment that has gone into individual schemes (as indicated in Table 12), providing they meet basic criteria of quality control, content and standards.

For Contractors, providing that health and safety knowledge is based on the passport syllabus (Section 3.4 and Appendix 9), and that this knowledge is tested under controlled conditions, scheme organisers should mutually recognise the differing approaches adopted eg touch screen test, attendance at assessed training sessions. It is accepted however that any test on its own is no substitute for proper training, although this may be achieved in a number of ways.

8.8.2 Co-ordinators
Currently, there is one industry dominant assessment scheme for those individuals undertaking the role of planning supervisor; this is via membership of the APS. APS intends to assess the new duty holder (Co-ordinator or other title or role) and create a ‘new name’ register of those satisfying APS requirements. Existing planning supervisors will have to pass a test in order to ‘move across’.

Although the client may well want to assess other attributes, this should be seen as separate from the ‘competency’ assessment.

IPS also has a scheme but it is very much smaller and at a lower profile than APS.
As noted in Section 5.6, there would be considerable benefit to industry if APS and IPS could find a way of combining, keeping the best of practice from each organisation. There would be further advantage in closer co-operation between the Institutions and APS/IPS.

It would be advantageous to the industry if Institutions were also to identify the additional membership requirements for their members to become formally recognised as competent to undertake the role; this could take the form of registers, or other distinguishing feature, as already exist for other specific competencies eg the ICE/IStructE CARE register. The Health and Safety Register administered by the ICE, but open to members of any construction related institution, offers such an option.

General guidance would be required to establish the essential features of registers, and specific schemes, but these should, as a minimum, require:

- Chartered membership of a relevant construction related institution (Note 1)
- A minimum 10 years experience (5 years post-qualification)
- 12 months site experience
- Re-validation of members at periodic intervals
- On going CPD and relevant project involvement
- Broad knowledge of health and safety legislation (as exampled in Table 18)
- Successful assessment at an industry derived ‘Co-ordinator’ training course.
- Examined entrance (Note 2)

Note 1: an ‘exceptional candidate’ route would be needed for those who do not belong to an institution, or who were of a different grade, but clearly had the equivalent competency. This should not be seen however as an open alternative to the named route.

Note 2: See Section 8.6 (penultimate paragraph). Where an assessed entrance is required, this is seen as a rigorous test as, for example, adopted by the ICE H&S Register or Fellowship of the APS.

It is recognised however that the capacity of the industry to accommodate the proposed training course and the examined entrance requirement (there are at present very few members of the quoted examples) is constrained, and some time-limited compromise may be required.

It would be necessary for the ACOP to state that membership of such a register was a prerequisite to discharging the functions of a Co-ordinator.

There is no reason why steps should not be taken now by industry to set up the suggested registers as these may be utilised no matter what final role emerges from the CDM consultation process. Pending the wide adoption of registers, those individuals aspiring to discharge the functions of the Co-ordinator would be expected to be able to demonstrate comparable individual compliance with the attainment levels set out in Table 18.

8.9 REMOVING VARIATION AND REPETITION

The Author believes this can be most appropriately satisfied through:

- those engaging others requesting no more than set out in the Core Criteria. This is to the advantage of all parties as it will allow rapid assessment;
- membership of an accredited competency assessment scheme, which will remove the need for any repeat assessment (apart from re-validation reviews);
- the guidance to CDM specifically endorsing the above.
The first bullet point removes variation, but does not remove repetition. It is however open to any organisation engaging another if they wish to use it pending the availability of sufficient assessment schemes or because they wish to retain an independent review.

The second bullet point satisfies both objectives and involves 3rd Party certification procedures, in order to provide demonstrable quality assurance. This is concluding that organisations must have Certified or Mandatory competence as described in Section 3.2.

In order to avoid organisations being asked for more than the Core Criteria require, it is essential that this approach is given formal HSE backing, as noted in the third bullet point above. Hence there is a need to include reference to this aspect in the guidance to the Regulations, and preferably as ACOP material72.

8.10 TRAINING PROVISION

Training is only one component in the acquisition of competency. However, in view of the importance of adequate training to the achievement of individual ‘competence’, it is considered that more needs to be done to establish benchmarks against which training courses may be measured. Whilst these are well established for Contractors, and for the acquisition of general health and safety skills, via CITB-ConstructionSkills, IOSH and NEBOSH, there is as yet no benchmark for Designers having the same equivalence, although as noted in Section 5.5, CITB is now promoting a course which has been aligned with the CIC/SiD Learning Aims. Planning supervisors also generally lack an accepted training benchmark.

It is concluded that ConstructionSkills- and others such as IOSH/NEBOSH as appropriate—should map out a matrix of learning needs, for Contractors, Designers and Co-ordinators which may act as training benchmarks. The examples set by others should be utilised where appropriate (see Section 5.5 which mentions for example EPIC, fork lift truck drivers etc). Whereas the strict formalised system adopted under SENTINEL (Appendix 7) is not required for general training, the concept of accreditation, accepted syllabi and the like has attractions.

It should be noted that ‘training’ is intended to be interpreted widely and to include self learning, on-line learning and other new modes of delivery73. This is also an opportunity to move away from traditional ‘rule based’ syllabi, and move towards interactive ‘practical application’ syllabi. A modular approach is also recommended as this allows SMEs in particular to obtain necessary instruction whilst minimising cost.

Successful training depends upon the competence of the instruction. As part of the benchmarking noted above, those who deliver ‘training’ should be asked to supply evidence of their qualifications and experience against minimum expectations; their delivery should also be assessed as part of the quality assured process.

8.11 IMPLEMENTATION ISSUES

In order for the above conclusions to be realised it will be necessary to create sufficient ‘carrots’ to encourage the whole industry to participate, such that after a period of time, a natural momentum and industry ownership will carry it forward.

The clear benefits are seen to be:

72 The Author recognises that some argue for ‘guidance’ in lieu of ACOP as it is considered easier to change in the future, should the need arise.
73 See for example http://www.iosh.co.uk/index.cfm?go=enjoylearning.main
• certainty and clarity,
• the ready demonstration of an acceptable standard of competence,
• simplification of the competency process and improvements in management processes as a consequence of the standards required,
• reduction in barriers to business,
• reduction in costs over time.

In time it is anticipated that client/engager demands for simplicity and transparency will provide a major incentive for adoption.

In the Author’s view an appropriate way to ensure and encourage compliance ie in the longer term for all organisations to be members of an accredited competency assessment scheme, is to:

• Make it the norm (the level playing field), as CSCS is becoming at an individual level,
• Insist on it being a pre-requisite on public sector works (representing over 40% of all construction works) by 2010, akin to the stance taken in Northern Ireland in respect of the Safe-T-Cert scheme (see comment below). This is now confirmed through the ‘Common Minimum Standards’ (See Section 4.15).
• Obtain the active backing of the major construction clients, trade/professional associations, trades unions and contractors.
• Encourage the insurance industry to discriminate between organisations that invest and those that do not.

The role of local government in this respect is crucial as they employ many SMEs and have the potential for being an influential driver.

(In Northern Ireland it will shortly (April 2006) be mandatory for all those engaged on public sector works to be members of the Safe T Cert scheme. The NI Construction Employers’ Federation report that there are some signs that those organisations that are already signed up, are beginning to experience some advantage in insurance premiums).

Regrettably, there is a section of the market which has paid lip service to competency to date, and hence they will only see advantage in joining a scheme if their work is dependent upon membership. Hence the importance of the four bullet points above. Client support and compliance, in this same section of the market, will be largely dependent upon firm advice from the Co-ordinator.

The driver for the achievement of individual competency is reasonably clear. It is simply that:

• to work on a construction site or to undertake design one must be competent unless supervised. In order to minimise the number of supervisors, it will be advantageous to maximise the number of competent persons.
• employers seeking to engage will look to competent persons in the first instance.
• for an organisation to obtain membership of a competency scheme it will be necessary to have a proportion of employees deemed to be competent.
• although individual competency may be judged in other ways, use of the accepted benchmarks will greatly simplify the check.

If the recommendations for corporate competency are adopted, individual competency attainments will follow. They can however be introduced immediately and independently of corporate assessment schemes.
8.12 LONGER TERM AIMS

It should be the aim to reach a situation where all design and construction organisations operating in the construction industry\textsuperscript{74} (including those offering the functions of Co-ordinators), are members of accredited competency schemes and all individuals are aligned with recognised standards. This will have the benefit of:

- Ensuring baseline competence without the need to assess basic issues on a project by project basis
- Raising standards
- Excluding the incompetent

This is, in effect, moving towards a licensed industry, as is the case in a number of other countries. This may appear a radical step, however if we are serious in the endeavour to raise standards, reward those that invest in people, and exclude the ‘cowboy’ element, (which is a government aim), this may be a necessary step.

\textsuperscript{74} defined by the undertaking of ‘construction work’ rather than the traditional demarcation which excludes ‘engineering’.
9 CONCLUSIONS AND COMMENTARY: RESOURCE

9.1 INTRODUCTION

In the Author’s experience the requirement to establish adequacy of resource under the current CDM Regulations is rarely undertaken of Contractors, Designers or planning supervisors for CDM related purposes. The measurement of resource, in accordance with the current Regulations is, in many cases, problematic in view of the variables involved and lack of clarity. It is doubtful whether the exercise to date has achieved any widespread substantive benefit. (Note however that the respondents to the questionnaire, summarised in Section 7.4, indicated a more positive position than this).

Although the definition of resource given in the CDM ACOP includes equipment and technical backup as well as time resource ie person days of the appropriate quality, it is the latter that dominates any attention in most cases. It is considered that the availability of equipment and technical back-up is likely to be more critical at the smaller project end of the market where micro businesses are common.\footnote{even in this respect however the prevalence of hire facilities reduces the criticality of this element as part of a ‘resource’ check although it may be required for other reasons.}

CDM 2006 introduces a change of emphasis whereby the assessment of resource is made within the context of the management plan (Appendix B) rather than in respect of a general assessment as is the case at present. The Author concludes that this should be extended to an assessment of resource for Contractors and Designers throughout the supply chain, but in the modified format described below.

9.2 ASCERTAINING RESOURCE

The following sections (9.2.1 and 9.2.2) contain general comments applicable to Contractors and Designers; some of these apply equally to Co-ordinators. Specific comments relating to Co-ordinators are given in Section 9.2.3.

Section 8.6 discussed the situation in respect of competence when the construction phase is less than 30 days and hence no Co-ordinator is appointed. The proposals in this Chapter, relating to ‘resource’ take account of this same situation ie that the Client may not have any means of establishing the validity of the proposed resource for Contractors and Designers in these cases, and possibly for all cases when appointing a Co-ordinator.

9.2.1 Persons

Apart from extreme examples, where resource is significantly underestimated in quantum and quality, it is considered unrealistic for the Client (even with an advisor) to make a judgement on the proposed person resource proposed. It is very much doubted that such an advisor would be able to argue a case against an experienced Contractor or Designer which was putting forward a resource proposal, or whether the advisor would want to base a rejection on the grounds of inadequate resource in these ‘middle ground’ cases.\footnote{It follows that enforcement will also be difficult.} This concern applies equally to the assessment of other sub-Contractors and Designers.

If ‘resource’ is to remain an explicit check, then the test must be clear.

As regards ‘person resource’ it is concluded that this should be limited to key persons within the resourcing plan of the engaged party, specifically including supervisory elements, and a
competent source of advice on health and safety issues\textsuperscript{77}. It is also concluded that this should be provided in terms of minimum standards of knowledge, experience and qualifications against each significant post; in this manner the assessor need not be involved in considering specific individuals, nor be concerned should they become unavailable as frequently occurs in bid situations or with delayed project starts.

The chosen ‘significant posts’ should be put forward by the organisation being assessed unless stipulated by the engaging party, and will depend upon the size of project and contract. They should be sufficient however to ascertain the management structure, and the proportion of the team at each level that is competent according to the conclusions in Chapter 8. (This selective check does not remove the obligation on the party being engaged to ensure they are competent as an entity).

Some of this generic checking of resource will be covered by the checks on competence, thus providing further simplification.

As mentioned above however, it is concluded that this approach should apply, as in the current regulations, to all organisations being engaged, throughout the supply chain.

9.2.2 Time
The second element of resource is ‘time’. This is very difficult to assess as, apart from extremes, there are many variables that can effect the required period. The ability of the Client (with an advisor), or other Contractors or Designers, to assess anything other than basic parameters eg mobilisation period, key milestones, overall length of contract is doubted.

It is not reasonably practicable for a Client to monitor allocation of time to sub-contractors unless operating a construction management form of appointment (when they are directly engaged) and even here there are numerous obstacles.

Hence it is concluded that any formal check on ‘time’ by the Client be limited to the period allocated:

- For design phases (feasibility, detailed etc) either prior to construction, or during construction if within the direct control of the Client.
- Between award and mobilisation
- For construction,

on all contracts let by the Client, and on

- Any date or time constraint set by the Client eg intermediate milestones, or arising subsequently from Client changes to the Works.

Checks on time by others engaging Contractors or Designers should be limited to the period allocated:

- For design or construction as relevant
- Between award and mobilisation
- Any date or time constraint set by the engager eg intermediate milestones, or arising from Client or engager changes to the Works.

This approach will capture most key aspects of a project, and cause them to be carefully considered, without becoming involved in detailed assessments for which there are no certain answers. This approach also means that civil contracts must be clear as to whether Contractors or suppliers are being engaged to undertake significant elements of design.

\textsuperscript{77} Reg 7 of the Management of Health and Safety at Work Regulations.
In all cases the determination of adequate time and its review should be the subject of required dialogue between the engager and the party to be engaged. One cannot ensure agreement, but it is possible to ensure discussion.

9.2.3 Co-ordinators
The persons proposed to discharge the Co-ordinator functions should be open to scrutiny as is suggested for Contractors and Designers (Section 9.2.1). Hence the Co-ordinator should present the Client with a ‘person/management’ tree setting out the competent persons proposed, the functions they will be discharging, and details of how they fit into the overall management structure of the organisation. The competency of those involved is covered through the conclusions of Chapter 8. Many Clients will not be able to comment on this, but it will act as a record.

It is vital that sufficient time is allocated to all the functions scheduled in Regulation 13 (see Table 19 which is repeated from Table 7). Lack of time (often manifested in the low level of fees frequently allocated to the role of planning supervisor) is one of the key failings of the current system. It is considered that for all appointments, the Co-ordinator should formally present the Client with details of the activities allocated to each function.

<table>
<thead>
<tr>
<th>Function</th>
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<tbody>
<tr>
<td>(a)-assist and advise the Client</td>
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<tr>
<td>(b)-identify and extract the information specified in Regulation 10</td>
</tr>
<tr>
<td>(c)-advise on the suitability and compatibility of designs</td>
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<tr>
<td>(d)-co-ordinate design work, planning and other preparation</td>
</tr>
<tr>
<td>(e)-liaise with the Principal Contractor in respect to any design or change…</td>
</tr>
<tr>
<td>(f)-provide information relating to Regulation 10</td>
</tr>
<tr>
<td>(g)-prepare, review etc H&amp;S File</td>
</tr>
<tr>
<td>(h)-pass H&amp;S File to Client</td>
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</tbody>
</table>

This process will not prevent inadequate time allocation but it will force the parties to consider the tasks to be undertaken, and it will form a record for later examination by others should it be needed. (Examples of typical entries are illustrated in Appendix 11). Professional Clients will be able to form a judgement on the adequacy of the activities included.

Regardless of the project details, and although this is not explicitly mentioned in Table 19, it is considered that at least one site visit should always be included.

These conclusions will need to be described in the ACOP in order to give them weight. They are drawn up with specific regard for the fact that there is significant criticism of the lack of presence of the ‘planning supervisor’ on many projects, and the fact that the Client is often not able to form a judgement as to what is required. Within reasonable bounds this is considered to be a pragmatic solution.

9.2.4 Equipment, Technical backup and the like
It is concluded that formal statutory resource checks should exclude equipment, and technical back-up, and that this should be executed under Stage 2 of the Competency check, as part of a required dialogue between engager/engaged around a specific project. This will demonstrate whether or not these elements of resource are satisfactory and hence they may be covered in this fashion. This will reduce ‘resource’ to the common understanding, as noted above.
10 RECOMMENDATIONS-COMPETENCE

10.1 INTRODUCTION AND GENERAL RECOMMENDATIONS

These recommendations are put forward as a means of improving the current situation in respect of ‘competence’ and adding some value to the process of assessing the competence of those contracting and design organisations, and individuals, engaged on construction work. Given the diversity of the industry, the range of clients involved, and the large number of small businesses, it is not easy to derive a solution that will be wholly effective. Nonetheless, it is considered that the recommendations that follow will bring significant improvement in competency standards and clarity of requirements.

It is considered that an important feature of any proposal should be to:

- ensure it is as simple as possible,
- do no more than the law requires\(^78\)
- assist business to be more efficient, cost effective and competitive
- play a role in excluding the ‘incompetent’

The Author believes that this has been reasonably achieved.

Competence should be demonstrated at a corporate level and at an individual level within the corporate framework if it is applicable. This applies to all contractor and design organisations (and those offering to discharge the functions of Co-ordinator) of whatever size.

Explicit reference to the recommendations should be made in CDM\(^{2006}\), in ACOP format, such that the proposals have credibility and enable certainty of compliance.

10.2 CORPORATE COMPETENCY

It is recommended that:

<table>
<thead>
<tr>
<th>C1</th>
<th>Clarity is brought to the definition of competency, such that variations in assessments by different clients may be avoided. This should be achieved through a combination of:</th>
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<tbody>
<tr>
<td></td>
<td>* the use of the Core Criteria as illustrated in Appendix 10 (Stage 1) and,</td>
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<tr>
<td></td>
<td>* a review of track record to establish the ability to identify the hazards and manage the anticipated risks. (Stage 2).</td>
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<tr>
<td>C2</td>
<td>The evidence necessary to demonstrate compliance with the Core Criteria should reflect the size of organisation and its exposure to risk. It should be recognised that those employing less than 5 persons may not have a written policy, organisation or arrangements and that small organisations can demonstrate compliance without resorting to large amounts of paperwork or formal procedures.</td>
</tr>
<tr>
<td>C3</td>
<td>Guidance should be provided to illustrate the typical evidence required by SMEs in particular, to satisfy the Core Criteria. This is seen as a vital step in order to bring consistency, and to avoid unnecessary paperwork.</td>
</tr>
<tr>
<td>C4</td>
<td>It is recommended that the Core Criteria be introduced immediately (with guidance) by:</td>
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<tr>
<td></td>
<td>o HSE giving widespread publicity and support to the Core Criteria(^79)</td>
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<td></td>
<td>o Industry bodies informing clients and others</td>
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<td></td>
<td>o Government and major clients in particular adopting them on all their projects, and OGC literature (specifically PG10) supporting this.</td>
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</tbody>
</table>

\(^{78}\) Enhancement is outwith the brief of this study

75

78 Enhancement is outwith the brief of this study
And in due course by

- Including them in the CDM<sup>2006</sup> in ACOP format,

C5  The importance of corporate competency should be recognised by insisting that applications and statements be signed by the Managing Director or equivalent.

C6  The ACOP should formally require Contractors, Designers and Co-ordinators to alert the Client or other engager to the routes available for ensuring corporate competence.

### 10.3 INDIVIDUAL COMPETENCY

These recommendations are not intended to imply that an individual failing to meet them is ‘incompetent’; there will be other equally valid ways in which competency may be judged. The aim of the recommendations is to derive a simplified means of establishing competence, applicable across the industry that avoids the need for specific individual checks. By its very nature this ideal has to be simplistic and standardised. A mandatory route has been introduced for Co-ordinators in view of the specifics of the role.

It is recommended that:

C7  Following the example set in other legislation:

- all Contractors and Designers involved in a project should be competent to undertake the assigned tasks unless they are undergoing training and under the supervision of a competent person,
- there should be a sufficient number of persons with the requisite competence to perform tasks assigned to them

All those discharging the functions of a Co-ordinator should be competent.

C8  The competence of individual Contractors or Designers should be judged against the requirements of Table 17. This should be achieved in relation to the holding/membership/attainment of:

C8a  **Contractors**

- The appropriate CSCS or affiliated cards, or
- Equivalent card system

And, in the short term,

- Individual assessments

C8b  **Designers**

- Membership of a ‘design’ related institution,

And, in the short term,

- Individual assessments

C9  CSCS, and other card schemes as appropriate, should consider the issues identified in Chapter 8 and Appendix 8 and work towards resolving these as a matter of urgency, with a declared action plan. (Some of these are in hand).

C10  The design institutions need to consider the issues identified in Chapter 8 and Appendix 8 and work towards resolving these as a matter of urgency, with a declared action plan. (Some are already doing so).

C11  The design institutions should consider incorporating the appropriate learning aims derived by CIC/SiD in their requirements for membership and life long learning.

<sup>29</sup> this does not have to wait until the introduction of CDM<sup>2006</sup> in October 2006

<sup>30</sup> and the ARB in the case of architects.
The competence of individual Co-ordinators should be judged against the requirements of Table 18. This should be achieved in relation to the holding/membership/attainment of:

- Membership of an appropriate register (see Section 8.7.2)
- Individual assessment

The ACOP should formally require Contractors, Designers and Co-ordinators to alert the Client or other engager to the routes available for ensuring individual competence.

As noted in Section 4.1 there are likely to be many Contractors, Designers and planning supervisors currently outwith the suggested pathways. This cannot be corrected overnight and hence there needs to be period of adjustment with a clear target for fully a compliant workforce; this is suggested as 2010 for Contractors and Designers, and 2007 for Co-ordinators. Consideration should be given however to legislating for specific competence standards applicable to those contracting personnel undertaking high risk activities, as is the case in the Irish Republic (See Appendix 7).

In the meantime those assessing ‘competence’ will have to make a judgement based on presented data ie the status quo. It is open to regular Clients to ask for timed improvement plans.

10.4 COMPETENCY ASSESSMENT SCHEMES

10.4.1 Corporate Competency Schemes

It is hoped that existing competency assessment schemes will continue to provide a valuable contribution to the aims of this report. They have the potential for acting as a catalyst for change. They should however be reviewed by their sponsors to ensure they meet the recommendations set out below. Notwithstanding, one-off assessments continue to be valid for those engagers which wish to go down this route.

Compliant competency assessment schemes should contain the following features:

- The Core Criteria
- ‘On site’ audit of applicants (at the design office for Co-ordinators and Designers and, for Contractors, on a project construction site),
- Partial re-validation annually\(^{81}\) and a full validation check after a period of 2 years.
- A third party scheme assessor

All application submissions by organisations requesting to join accredited competency assessment schemes, should state that they meet the Core Criteria, and should be signed off by the Managing Director or equivalent as an indication of ‘whole company buy-in’ and commitment.

Encouragement should be given to existing and new accredited ‘assessment schemes’, so as to avoid unnecessary repetition in demonstrating competence.

Assistance should be given to SMEs in joining such schemes, specifically those organisations employing less than (say) 10 people. This could be done by:

- A competence guide (see recommendation C3) and compliance ‘test’ as a web based facility similar to that outlined in Section 3.5, to give SMEs an indication of readiness,
- Schemes providing an element of free advice to provide a kick-start to those

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\(^{81}\) Partial submission check concentrating on high risk issues.
organisations which need it.

C18 In order to ensure that schemes are of appropriate standard, and that auditors operate to common benchmarks, HSE should facilitate clear guidance as to the essential aspects. This could be achieved along the lines used for EPIC or acwaht.

C19 In order to provide the infrastructure for the implementation of these recommendations:

- Public sector clients should recognise accredited schemes in addition to ConstructionLine, and CHAS,
- OGC’s Policy Guide 10 should be revised to reflect these recommendations,
- ConstructionLine, CHAS and other schemes (See Appendix 7) should consider how their aspirations might be aligned with the recommendations of this report,

C20 Those trade organisations that do not currently run schemes should consider how their members would best be served eg utilising other existing schemes.

C21 Design, and specialist ‘planning supervisor/health and safety’ consultancies, should consider how they might develop or attach themselves to existing accredited competency schemes in order to facilitate their assessment by engagers.

It is hoped that Clients will also, but as a separate optional issue, seek demonstration of ‘best practice’ from those organisations that they employ. These items might include specific adoption of the ‘respect for people’ agenda [SF 2005], the regular use of the Considerate Contractors Scheme, KPIs, and the IOSH ‘Global Best Practice’ code [IOSH 2002].

The industry should work together to encourage organisations to join competency assessment schemes as a means of bringing benefit to them in the longer term.

10.4.2 Individual competency/passport schemes

It is considered essential that action is taken to minimise the barriers between individual schemes.

C22 HSE should consider facilitating research into, and discussion between schemes in order to encourage the minimisation of barriers and maximising mutual recognition in part (specifically the health and safety knowledge element) or whole.

C23 Institutions and others are encouraged to establish ‘registers’ of their members who satisfy the competency requirements for the role of Co-ordinator.

10.5 GOVERNMENT AND ITS AGENCIES

It is recommended that:

C24 The government, in all its various formats, at central and local levels, should explicitly sign-up to these recommendations and monitor their implementation in line with their commitment made at the 2005 Safety Summit. (It is particularly important that this happens at Local Authority level where there is greatest contact with SMEs)

82 Mandatory on central government projects, and emphasised on a wider basis in ‘Common Minimum Standards’
10.6 TRAINING

It is recommended that:

| C25 | ConstructionSkills (in conjunction with SummitSkills and others\(^\text{83}\)) should continue to develop a central role in the benchmarked provision of training for all those involved in construction work. In particular benchmarked courses are required for Designers and Co-ordinators. |
| C26 | The experiences of the training provision of EPIC, forklift drivers, acwaht (all discussed elsewhere in this report) should be used to the advantage of the construction industry |
| C27 | Consideration should be given to the means of setting standards and assessing course trainers. |

10.7 GENERAL

| C28 | It is recommended that HSE meets: |
|     | • with the major construction sponsors (private and public) to explain the proposals and encourage them to buy-in. |
|     | • with the design institutions, APS and others to encourage them to expedite the necessary changes to their professional pathways. |
|     | • with the construction bodies sponsoring, or likely to sponsor competency schemes. |
|     | • with industry card scheme organisers to encourage them to expedite the necessary changes to their pathways. |

10.8 REGULATIONS AND GUIDANCE

CDM\(^{2006}\) should reflect the recommendations of this report.

\(^{83}\) to include training providers
11 RECOMMENDATIONS- RESOURCE

It is recommended that the requirement for the assessment of resource is defined and applied in a simple verifiable manner, in order avoid disputes and uncertainties arising at project commencement on matters for which there is no quantitative ‘correct’ answer.

11.1 GENERAL

Recommendation R1
The guidance should emphasise the essential need for dialogue prior to appointment and commencement of work, whilst recognising contractual constraints. The ACOP should also specifically emphasis that the Client’s obligations under Regulation 7 include assessing the resource of the Co-ordinator as this is not explicit as currently drafted.

Recommendation R2
The recommended resource checks should be applied by all those in the supply chain engaging Contractors and Designers.

11.2 PERSONS

Recommendation R3
The adequacy of the persons proposed as Contractors, appointed by the Client or others, should be assessed against the following criteria:

Table 14 Person criteria: contractors

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly defined management tree</td>
<td>This will vary depending upon the size of project. It should feature all the key roles, off and on-site.</td>
</tr>
<tr>
<td>Key Persons</td>
<td>To match the tree above, but typically Contract Manager, Agent, First Aiders, Temporary Works Co-ordinators, Competent Health and Safety Advisor, Gangers and the like. Those in a competent supervisory role on-site shall be specifically identified.</td>
</tr>
<tr>
<td></td>
<td>Where the resource is not full time on site or the project, the % time available should be given.</td>
</tr>
<tr>
<td>Capability</td>
<td>Although this data may be given for named individuals, for all named positions mentioned above it should also make clear the proposed minimum levels of capability in terms of experience, training and qualifications, recognising that these individuals may not be selected when the project is finally awarded or commenced. The proportion of site staff holding CSCS cards, or equivalent, at all levels, should be stated.</td>
</tr>
</tbody>
</table>

This information should be provided separately for:

- Planning and preparation for construction work; and
- The construction work itself

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84 This will be repeated for each contractor employed, thus building up an overall view.
Recommendation R4
The adequacy of the persons proposed as Designers, appointed by the Client or others, (and which may be part of contracting organisations, suppliers or others), should be assessed against the following criteria:

Table 11.2 Person criteria: designers

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly defined management tree</td>
<td>This will vary depending upon the size of project. It should feature the key persons with an active role in the project so that anyone with project responsibility is included.</td>
</tr>
<tr>
<td>Key Persons</td>
<td>To match the tree above, but typically project director, project manager, competent health and safety advisor, design team leader, designers, graduates, technicians and the like Those in a competent supervisory role shall be specifically identified. Where the resource is not full time, the % shall be given.</td>
</tr>
<tr>
<td>Capability</td>
<td>Although this data may be given for named individuals, for all identified positions mentioned above it should also make clear the proposed minimum levels of capability in terms of experience, training and qualifications, recognising that these individuals may not be selected when the project is finally awarded or commenced. The proportion of staff meeting the ‘competency’ definition of this report, at all levels, should be stated. Additional attributes such as CSCS cards, or equivalent should also be stated.</td>
</tr>
</tbody>
</table>

This information should be provided separately for:

- The pre-construction design phase
- Planning and preparation for construction work; and
- The construction period itself and separately any significant design periods within it.
**Recommendation R5**
The adequacy of the persons proposed to act as Co-ordinators (which may be part of the client, contracting, design or other organisations), should be provided against the following criteria. A copy is to be provided to the Client, the Principal Contractor and other Designers appointed by the Client. It should be discussed with the Client in order to provide him with an appreciation of the role. The form should be kept for record purposes.

**Table 11.3 Person criteria: co-ordinators**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly defined management tree</td>
<td>This will vary depending upon the size of project. It should feature the key persons with an active role in the project so that anyone with project responsibility is included.</td>
</tr>
<tr>
<td>Key Persons</td>
<td>To match the tree above, but typically those individuals who will discharge the functions, all of whom should be competent, and any supporting expertise.</td>
</tr>
<tr>
<td>Capability</td>
<td>Although this data may be given for named individuals, for all identified positions mentioned above it should also make clear the proposed minimum levels of capability in terms of experience, training and qualifications, recognising that these individuals may not be selected when the project is finally awarded or commenced. All staff should meet the ‘competency’ definition of this report, at all levels. Additional attributes such as CSCS cards, or equivalent should also be stated.</td>
</tr>
</tbody>
</table>

**11.3 TIME**

**Recommendation R6**
Time periods allocated should be assessed and reviewed as necessary by the Client and all those engaging others, for both Contractors and Designers.

The time periods to be reviewed should include:

- Mobilisation period (contract award to commencement of design or construction as relevant).
- Design periods (prior to and within construction contracts).
- Time allocated to engager controlled milestones.

**Recommendation R7**
The Co-ordinator should complete a form as typically illustrated in Appendix 11 and present this to the Client, the Principal Contractor and other Designers appointed by the Client. It should be discussed with the Client in order to provide him with an appreciation of the role. The form should be kept for record purposes.

83
11.4 REGULATIONS AND GUIDANCE

CDM 2006 should reflect the recommendations of this report.

In accordance with the proposed regulation 7 of CDM 2006 the Client will need to review the provision of resource if there is a significant change to the works. This should be extended to other engagers also in the case of Contractors and Designers.
APPENDIX 1

CONTRIBUTORS

Contributions were made by the following organisations. Those attending the focus group meetings are shown thus*. Those organisations contributing in respect of the ‘Co-ordinator’ are indicated thus: +. The views given in the Report however are the responsibility of the Author.

ASDA
Association of British Insurers
Association for Consultancy and Engineering*
Association for Project Safety* +
B&Q
British Constructional Steelwork Association*
CDM NW Contact Group*
CHAS*
CITB-ConstructionSkills*
Civil Engineering Contractors’ Association
Construction Clients Group
ConstructionLine
Construction Confederation*
Construction Employers Federation (NI)
Constructing Excellence*
Construction Industry Council* +
Construction Skills Certification Scheme
Department of Trade and Industry
EC Harris
Electrical Contractors Association*
Engineering Construction Industry Association*
Faber Maunsell*+
Federation of Master Builders
Griffiths & Armour
Health and Safety Authority (Ireland)
Highways Agency
Institution of Civil Engineers*
Institution of Occupational Safety and Health
Institution of Planning Supervisors+
Institution of Structural Engineers*
Major Contractors Group*
Manchester City Council
Manchester Engineering Design Consultancy*
Alfred McAlpine*
National Federation of Builders
National Specialist Contractors’ Council*
Network Rail
NHS Estates*
Office of the Deputy Prime Minister
Office for Government Commerce
Prisons Service
Royal Institute of British Architects*
Specialist Engineering Contractors*

ABI
ACE
APS
B&Q
BCSA
CHAS
CITB
CECA
CCG
CC
CEFNI
CE
CIC
CSCS
DTi
ECA
ECIA
FMB
HSA
HA
ICE
IOSSH
IPS
IStructE
MCG
MEDC
NFB
NSCC
ODPM
OGC
RIBA
SEC
APPENDIX 2

EXTRACT FROM THE CDM REGULATIONS 1994

Regulation 8 Competence of designers and contractors

(1) Omitted (not relevant)

(2) No person shall arrange for a designer to prepare a design unless he is reasonably satisfied that the designer has the competence to prepare that design.

(3) No person shall arrange for a contractor to carry out or manage construction work unless he is reasonably satisfied that the contractor has the competence to carry out or, as the case may be, manage that construction work.

(4) Any reference in this regulation to a person having competence shall extend only to his competence:

   (a) to perform any requirement; and
   (b) to conduct his undertaking without contravening any prohibition,

imposed on him by or under any of the relevant statutory provisions.

Regulation 9 Provision for health and safety

(1) Omitted (Not relevant)

(2) No person shall arrange for a designer to prepare a design unless he is reasonably satisfied that the designer has allocated or, as appropriate, will allocate adequate resources to enable the designer to comply with regulation 13.

(3) No person shall arrange for a contractor to carry out or manage construction work unless he is reasonably satisfied that the contractor has allocated or, as appropriate, will allocate adequate resources to enable the contractor to comply with the requirements and prohibitions imposed on him by or under the relevant statutory provisions.

EXTRACT FROM THE PROPOSED REGULATIONS (CDM 2006)

Competence

5 6 No person on whom these Regulations place a duty shall—

   (a) appoint or engage a co-ordinator, designer, principal contractor or contractor unless he has taken reasonable steps to ensure that he is competent;

   (b) accept such appointment or engagement unless he is competent;

   (c) arrange for or instruct a worker to carry out or manage design or construction work unless he is—
(i) competent; or

(ii) under the supervision of a competent person

**The client’s arrangements for managing projects**

7.—(1) The client shall take reasonable steps to ensure that arrangements are made, and maintained throughout the project, for managing it which are suitable to ensure—

(a) that—

(i) the construction work can be carried out; and
(ii) any structure to which the construction work relates, and which is designed for use as a place of work, can be used, without risk to health or safety; and

(b) the welfare of the persons carrying out the construction work.

(2) The arrangements referred to in paragraph (1) shall include—

(a) the allocation of resources (including time) to—

(i) the design of a structure;
(ii) planning and preparation for construction work; and
(iii) the construction work itself,

which are, so far as the client in question can reasonably determine, adequate; and

(b) arrangements for—

(i) review and revision of the arrangements;
(ii) review of the suitability and compatibility of designs and for any modification;
(iii) ensuring that persons are appointed under regulation 8 or engaged as designers or contractors in a suitable sequence and in good time;
(iv) the planning for and monitoring of construction work;
(v) ensuring that the duties in regulations 5 and 16 are performed; and
(vi) communication.
APPENDIX 3

Current Requirements: Managing Health and Safety in Construction (Approved Code of Practice)\(^{85}\)

The assessment of competence and resource is dealt with in paras 191-200 of the CDM ACOP. All of this section is ‘guidance’.\(^{86}\)

Para 192 sets out some sensible recommendations viz (paraphrasing):

- In everyone’s interest to ensure those employed are competent and adequately resourced, not only to manage risks but also to avoid delays,
- Little extra effort to check for this if also checking financial, quality and other attributes,
- Any assessment should focus on needs of the specific project, and be proportionate to the risks, size and complexity of the works.

The principles set out in para 195 generally reiterate these key points, and offer the useful pointer ‘in most cases, demonstration of a successful track record in similar work should be sufficient indication’. Author’s Note: ‘track record’ should be in relation to health and safety risk management, not for example successful financial completion, although there may well be a correlation.

Para 196 gets to the nub of the matter:

- ‘Unnecessary bureaucracy obscures the real issues…’
- ‘Standard generic pre-qualification questionnaires have been widely used, but can often be irrelevant, create a great deal of paperwork, and be of little benefit to health and safety.’

Hence the text emphasises the positive ways of assessment such as site (presumably office also) visits and one to one interviews. It is emphasised that specific weak areas may be supplemented by strengths elsewhere in the team.

This is good advice, which encouragingly also mentions the business benefits that can accrue as an integral part of this exercise. The concept of visits and/or interviews fits well with the ideal of endeavouring to find empathy, and specifically so for the longer term relationships such as framework agreements where it is essential to more fully understand the companies with which it is intended to do business.

The use of visits and interviews however does require confidence in the area of health and safety risk management. This may be a disincentive to some organisations (particularly SMEs) for whom the use of an external advisor in this respect would represent an unacceptable additional cost.

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\(^{85}\) HSG 224 from HSE Books
\(^{86}\) As opposed to ‘ACOP’ which has legal status.
Paras 198-200 explain how an assessment may be made. It suggests that, for competence, some or all of the following may be covered:

<table>
<thead>
<tr>
<th>ACOP (paraphrased)</th>
<th>Author’s Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track record data: simple evidence of performance</td>
<td>A technical track record is only half the story however. A project may have been finished on time and to budget, but was it managed or designed safely?</td>
</tr>
<tr>
<td>Competence of individuals; track record, qualifications, training in health and safety</td>
<td>As above, a technical track record is indicative, but not sufficient on its own;</td>
</tr>
<tr>
<td>Availability of competent people, management systems, equipment, facilities.</td>
<td>All organisations, no matter what their size must have ‘competent persons’ involved in the project. The level of competency is related to the project, not the size of organisation. On some projects access may well be needed to those with a higher skill level in health and safety matters/construction techniques etc. These might include those with specific health and safety related skill or qualification in this area and could be available from within the organisation, or externally.</td>
</tr>
<tr>
<td>Whether the organisation and key people are able to devote sufficient time to the project</td>
<td>This is probably seen as difficult to judge and implement in a commercial world. If health a safety is integrated into general management, as is appropriate, determination is not easy. Concentration on: -overall resource ie that the project does not dominate the workload of the firm, and -the key team personnel is probably a reasonable approach</td>
</tr>
<tr>
<td>Past performance, and corrective action taken</td>
<td>The guidance sensibly indicates that an absence of enforcement action is not a reliable indicator (neither necessarily is evidence of enforcement action-in this case the more important aspect is the action taken to prevent a re-occurrence)</td>
</tr>
</tbody>
</table>

Where bids are received it is suggested in para 199 that the means by which tenderers deal with health and safety matters in the pre-tender plan should also be taken into account. In the author’s experience it is unrealistic to expect those in a competitive situation (only one of which will be successful) to provide this kind of detail. A better approach is to either limit this requirement to a specific high risk activity that really needs an explanation at this stage, or to discuss this aspect at pre-award interview with the preferred tenderer.
Finally, para 200 gives some advice on the vexed question of time and resource. The key points made include:

<table>
<thead>
<tr>
<th>ACOP (paraphrased)</th>
<th>Author’s Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A breakdown of funds allocated to health and safety is not required, but may be</td>
<td>This has potential contractual pitfalls if not handled appropriately: any separation, or identification, will need to match the method of measurement used. Nonetheles, identification of health and safety items (welfare accommodation, officers, audits, health care etc), which may then be paid against a PC sum, is a transparent process and can be structured to take the cost of health and safety provision out of the competitive element of the tender.</td>
</tr>
<tr>
<td>specifically identified in the health safety plan</td>
<td></td>
</tr>
<tr>
<td>Resource includes the time available to carry out the design, draw up the pre</td>
<td>This is very difficult to determine in terms of the adequacy of the time proposed or provided (extremes excepted) given the variables that come into play such as staffing levels, weekend working, extent of design, staff experience, reliance on software etc. Overall project time may however be more readily assessed, and the concept of setting out at commencement the key milestone dates to ensure adequacy of time, is to be recommended.</td>
</tr>
<tr>
<td>tender health and safety plan, and develop the construction phase plan.</td>
<td></td>
</tr>
<tr>
<td>Time to mobilise labour and equipment, welfare, and the construction itself.</td>
<td>The ‘quick start’ is a major problem within the industry. It is for the design team to identify appropriate time periods at commencement of the project and to ensure these are maintained (see comment above), however the determination of adequate time periods for sub-contract work is less easily ascertained at this stage.</td>
</tr>
<tr>
<td>Adequate funds overall for realistic completion dates</td>
<td>This is likely to flow from the checks suggested above.</td>
</tr>
</tbody>
</table>

**Other advice from HSE**

Advice on competency and resource is also given in ‘Designing for health and safety in construction’ [HSE 1995a] and ‘A guide to managing health and safety in construction.’ [HSE 1995b] These documents predate the current ACOP and have not been updated since they were originally published in 1995. However the advice given is consistent with that of the ACOP albeit that it is expressed in a different manner.

**PROPOSED GUIDANCE**<sup>97</sup> (CDM 2006)

Extracts from the proposed Guidance:

*What clients must do*

41. Clients must always:
   a) check that the designers, contractors and other team members that they propose to engage are competent, adequately resourced and appointed early enough for the work they have to do;
   b) allow sufficient time for each stage of the project, from concept onwards;
   c) ensure there are suitable communication and management arrangements for the whole project, from concept onwards. (This does not mean managing the work themselves, as few clients have the expertise and resources needed and it can cause confusion.)

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<sup>97</sup> Whether this will be ‘code of practice’ has, at the time of writing, yet to be decided.
Designers and contractors should be able to advise for non-notifiable projects where no co-ordinator is required; d) co-operate with their project team.

Appointments – general

Regulations 4, 7 and 10(1)(d)

51. When appointing co-ordinators and principal contractors or engaging designers and contractors clients have to consider a wide range of factors including:

• their competency to carry out the work to the necessary/required standards;
• the resources (e.g. staff, equipment and, particularly, time) needed to plan and do the work properly.

53. Clients also need to consider the timing of their appointments to ensure that appointees:

• have sufficient time to plan prepare and mobilise; and
• can contribute to developing designs and plans – e.g. designers and contractors can discuss designs to ensure that they are buildable and maintainable and contractors can be involved in developing the construction phase plan.

150. Best practice designers have:

• a clear policy endorsed at board level on the management of health and safety;
• an established programme for health and safety training and Continuing Professional Development;
• a system to demonstrate that design staff have a good understanding of the construction process and a working knowledge of key health and safety guidance;
• hazard and risk information in their practice library concerning products regularly used or specified;
• established systems for design risk reviews at key stages of the design process;
• lists of products and processes (e.g. green / amber / red) which they wish to encourage / discourage or even ban from their designs and specifications.

Competence (of Principal Contractors)

183. To manage projects properly principal contractors need to understand the work processes involved and their health and safety implications to:

• anticipate the type and extent of risks;
• gauge the resources needed to deal with them;
• assess whether contractors’ proposals are practical and appropriate;
• develop and implement the plan;
• recognise and effectively deal with poor co-operation or conflict; and
• provide effective leadership in developing and implementing the construction phase plan for the particular project.

184. Clients need to take reasonable steps to ensure that the chosen candidate has these practical skills in managing construction projects. Candidates without experience of managing similar construction work should normally be ruled out. As the risk, size and complexity of construction projects increases the previous practical experience of the principal contractor’s management team becomes progressively more significant.

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88 Author’s note: this is in fact a mixture of ‘best practice’ and statutory minimum standards.
What contractors must do

Regulations 4, 5, 19 and 20

214. For all projects contractors must:
   a) plan, manage and monitor their own work (taking account of risk assessments carried out under the Management Regulations or COSHH, etc.) to make sure that their workers are safe from the start of their work on site;
   b) satisfy themselves that they and anyone they employ or engage are competent and adequately resourced;

Competence

Regulation 4

217. Contractors need to make sure that they, and any sub-contractors they engage, are competent to carry out the proposed work safely and that all of their managers, supervisors and other workers are properly trained. This is particularly important when high-risk work (see paragraph 30) is involved and contractors are only likely to be competent if their team has previous experience of similar work. Possession of relevant specialist qualifications (e.g. the Demolition Operatives Scheme\(^89\)) and membership of a relevant specialist trade association are also good indicators of competence. Additional general guidance is contained in chapter 7.

Chapter 7 of the ACOP is devoted to this subject, and is reproduced below:

Chapter 7. Competence and resources

226. This Chapter provides general advice about assessing the competence and resources of those engaged or appointed under CDM2006 – co-ordinators, designers, principal contractors, and contractors. The training and competence of individuals is addressed in the following chapter. There is also specific advice on the competence of particular dutyholders in relevant chapters.

227. It is in everyone’s interest to ensure that those with duties under CDM2006 are competent and adequately resourced to do their jobs properly, manage risks and avoid delays. To be competent, an organisation or individual must have sufficient experience, knowledge and other skills to carry out their duties satisfactorily. This includes management skills, where appropriate. While checking on quality, financial viability, etc., little additional effort is required to ensure that the organisation or individual is also competent and has sufficient resources to carry out their work safely. Dealing with all of these issues together works best. Assessments should focus on the needs of the particular project and be proportionate to the risks, size and complexity of the work.

What you must do

Regulation 4

228. All those with duties under CDM2006 must satisfy themselves that businesses that they engage or appoint are competent. This means making reasonable enquiries to check that the organisation or individual is competent to do the relevant work and can allocate adequate resources to it. People appointed must also be sure that they are competent to carry out the required tasks.

229. Co-ordinators should be in a position to advise clients about competence of designers and contractors. Clients should ask for this advice, unless they have enough expertise in construction and health and safety to make the assessments themselves.

89 http://www.citb.org.uk/demolition-training/record_scheme/default.asp
Principles

230. Assessment of competence and resources needs to take place before each appointment is made. The following principles underpin such assessments:

a) the competence and resource requirements under CDM2006 relate only to health and safety purposes but, in practice, it makes much more sense to check all aspects of competence needed to do the work together;
b) the level of competence must be adequate:
   o for the actual needs of the project being planned; and to
   o enable the appointee to comply with duties under these and other relevant legislation;
c) enquiries should be proportionate, well targeted and not repeat checks carried out for recent, similar work;
d) in most cases, demonstration of a successful track record of managing and carrying out similar work should be sufficient indication; and
e) for simple, low-risk projects, minimal checks are needed.

231. Unnecessary bureaucracy obscures the real issues and diverts effort from them. It can result in insufficient attention being paid to the availability of adequate resources, particularly time. Standard, generic pre-qualification questionnaires have been widely used, but are often irrelevant with little benefit to health and safety. They also tend to measure the ability to complete questionnaires, rather than to manage health and safety. There are generally more useful ways to assess competence and resources.

232. It may be that the best individual or organisation is weak in certain areas. This can often be addressed by putting arrangements in place to cover such weak points or by employing people with particular expertise for relevant parts of the contract. What really matters is that the project team, taken as a whole, is competent and support one another.

How to assess competence and resources

233. There are a number of relevant, widely recognised standards and pre-qualification schemes. Where these address the above issues they are likely to be the best way of performing the initial sift. They can be supplemented, for example by site visits and one-to-one interviews to address the specific needs of projects that need particular skills.

234. Enquiries to assess competence and resources might usefully cover some or all of the following:
   a) information about track record – simple evidence of health and safety performance, such as personal experience from previous projects, references from those who have engaged the dutyholder on previous projects, information from reviews following previous projects, and evidence from site visits;
   b) evidence of competence of individuals including managers and supervisors, their practical experience and knowledge of the work, qualifications, membership of a relevant trade or professional body, and training in health and safety;
   c) the availability of sufficient, appropriate, competent people and essential equipment, facilities and management systems;
   d) whether organisations and key people can devote sufficient time to the project; and
   e) information about past health and safety performance, including previous enforcement action (though this may not be a reliable indicator of current standards) and the steps taken to put things right. However, an absence of enforcement action is not, on its own, a reliable indicator of competence.
235. Bids from prospective appointees can also provide a useful indication of competence in the way they set out how they propose to deal with the health and safety matters identified in the information pack.

**Time and resources**

*Regulation 7(2)(a)*

236. Appointees need the necessary plant, machinery, technical facilities, trained and competent people, and time to do their jobs properly. A breakdown of funds devoted to health and safety is not required, but it may be helpful in relation to some high-risk matters specifically identified in the health and safety plan.

237. The resources provided for a project must be sufficient to:
- carry out the design work;
- assemble the information needed;
- prepare the construction phase health and safety plan;
- mobilise the labour force and equipment;
- arrange welfare facilities;
- plan and prepare for the project; and
- carry out the construction work safely.

238. Clearly, clients, and others who plan work and make appointments, must allocate sufficient time and funds. The planned dates for key project stages should also be set out in the information pack, so that designers and contractors can plan their work and allocate resources appropriately. It is better to have a realistic completion date than an unrealistic deadline.
APPENDIX 4

Revitalising Health and Safety in Construction
HSE issued a discussion document in 2002 entitled ‘Revitalising Health and Safety in Construction’ [HSE 2002] asking for the industry’s response and views on a wide range of issues associated with the improvement of health and safety within the industry. This was a major initiative and it generated a large volume of responses.

The document covered the question of ‘competency’ (but not resource) both directly, where it asked for advice and views, and also indirectly within the text. The direct approach was covered by:

Q6 ‘Will current industry initiatives deliver a fully qualified workforce, including managers, engineers, designers etc? If not what more should be done and what would be the costs/benefits?’

There was widespread support for the current approach adopted by schemes such as CSCS, and the need for a fully qualified workforce at all levels. However a number of concerns were also expressed in respect of the proliferation of schemes, practicalities, worthiness, cost and robustness against forgery. In the Author’s view the key points made were:

- All disciplines from the ganger to director need to demonstrate a minimum standard
- Need to simplify and amalgamate different schemes
- Any scheme must have support across the board
- CPD should be mandatory
- Clients should insist on certified workers
- Government needs to lead the way as the UK’s major client
- Involvement of the insurance industry would be beneficial

The view was also made that in the commercial environment a voluntary scheme would not function; there should therefore be a legal requirement to demonstrate a minimum standard.

Q15 ‘How should the role of planning supervisors (PS) be discharged in future?’

There was general agreement that the role of PS is currently largely ineffective. The role at present is remote from the action, it is almost a reserve position for most duties are only required where others do not perform their duties adequately or appropriately. PS have largely failed to secure the support of clients and designers in vital areas of planning and management. All too often, the PS is unable to influence the timing of the procurement process, or the provision of health and safety information, and this impacts directly on the extent to which health and safety is considered during the tender process.

Q18 ‘Should all construction businesses, or just those in specified trades, be registered or even independently accredited? If so, by whom and what would be the costs/benefits?’

There was clear support for the continued inclusion within the Regulations for demonstration of competence. The main reasons for supporting registration and accreditation were:

- Reassurance to clients and others
- Improved quality
- Discouragement of black economy
- Would assist the development of integrated teams
• Reduce the time and wasted effort currently expended on generic questionnaires

The point was made however that any scheme would not be cheap, although it was felt that the benefits would outweigh the costs.
APPENDIX 5

The Strategic Forum for Construction (SFfC)

The principal role of the SFfC is to coordinate, monitor, measure and report on progress under the headline targets. Where it is felt that sufficient progress is not being made under a particular target new initiatives are being considered.

The SFfC does not act as an operational body. Its strategy is being implemented via Constructing Excellence, ConstructionSkills, the Construction Umbrella Bodies, nCRISP and other Implementation bodies together with the wider stakeholders in the construction industry where appropriate

Accelerating Change

The Strategic Forum set out its vision and strategy for the industry in Accelerating Change. This places competency and training at the forefront of a 21st century construction industry. For example:

Pre-planned, well designed projects, where safe processes have been chosen, which are carried out by companies known to be competent, with trained workforces, will be safe: they will also be good, predictable projects.

The Forum recommended:

‘a list of basic competencies and a code of conduct should be made available to ensure the adequacy, consistency and independence of the service clients can expect.’

‘work to enable corporate competence to be readily assessed, and, if necessary, validated should be carried out, and recommendations made by September 2003.’

The Forum also indicated that our industry should be characterised by ‘Respect for its people including a positive image that attracts and retains a high quality committed workforce with appropriate skills and competencies’

Acceptance of these messages is an essential pre-requisite to the creation of a sustainable industry, able to attract and retain a quality workforce and compete in a world market.

The Report devotes Chapter 6 to ‘Accelerating Cultural Change in ‘People Issues’” This reflects the importance of people to our labour intensive industry. One of the outputs from the rethinking construction initiative has been the Respect for People Toolkits. These should play a role in competent management systems.
APPENDIX 6


This guide, one of a set espousing best practice in central government contracts, outlines a range of actions that should be taken by those departments which promote construction projects. Achieving ‘competence and resource’ is very much part of the recommended process.

Under ‘What departments should be doing’ (p4) is included:

- carrying out rigorous assessments of potential suppliers during selection processes to establish:
  - their competence and the adequacy of their resources
  - their commitment to a significant reduction in the number of accidents and near-misses.
  - their commitment to continuous health and safety improvement year on year
  - their compliance with the Construction Skills Certification Scheme (CSCS) or equivalent
  - their commitment to training and improving skill,

and also,

- auditing suppliers to check that they are actually complying with their stated approach to health and safety.

Under ‘Procurement Strategy’ (p12) it is indicated that the department should assess:

- The demonstrable high-level commitment of supplier directors and senior managers to health and safety, which should be evident from the suppliers’ submissions...
- Past and current performance, through examination of key performance indicator (KPI) information
- Health and safety aspects relating to the competence of the proposed designers and principal contractor,
- The proven skills of suppliers’ workforces, demonstrated by registration with accredited schemes such as CSCS
- Current health and safety performance assessed by direct examination of projects in progress (including worksite visits….and support functions such as design offices), with particular consideration of the effectiveness of the risk management procedures they have in place
- Initial design and construction proposals for addressing the project’s main health and safety issues and proposals for the provision of decent working conditions during the proposed project
- The health and safety resources and support that are available to the department to ensure that the health and safety risks are managed
- Monitoring and reporting of performance to OGC
- Plans for ensuring continual improvement in their health and safety performance over the life of the project

Although some of the phraseology is chosen to suit OGC situations, the intent is clear and of universal application.
The Guide goes on to say that ‘Clients should not award projects to teams that fail to demonstrate health and safety competence…’

And finally, in respect of resource, under ‘Investment Decision’ (p15) the text states that ‘The Plans produced by prospective ISTs should be checked …. In particular with respect to …..ensuring there is adequate time for developing robust proposals before starting work on site.’

The quotes given above provide a clear indication of OGC’s belief in the need for the assessment of competence and resource, that this should be pro-active, and importantly include a measurement of on-going improvement and commitment. The reference to ‘directors and senior managers’ is considered to be particularly pertinent.

Appendix D is entitled ‘Assessing supplier competence in construction- the CSCS Scheme’. This states that ‘Departments should require supplier companies to demonstrate, as a matter of good practice, that all those working on their sites have a proven level of competence (knowledge, skills and experience), including health and safety.

It goes on to mention the CSCS scheme as an example of an appropriate benchmark, and that the aim should be to have 100% of supply teams using staff registered with CSCS or equivalent. The aim is stated for this to be a contract requirement.

**Common Minimum Standards**

This document, sponsored by OGC, is available on the OGC website ([www.ogc.gov.uk](http://www.ogc.gov.uk)).

It is very relevant to matters contained in this report.
APPENDIX 7

EXISTING FORMAL SCHEMES

This Appendix schedules a number of established schemes. It is divided into schemes for

- Organisations,
- Individuals.

and

- Those used in other countries.

(Northern Ireland has been included in this category as it is not covered within the HSE remit)

Note that not all these schemes label themselves as ‘competency’ schemes; a number are careful to avoid this term. The Asbestos Licensing scheme is not a ‘construction competency’ scheme but is included to illustrate a process.

SCHEMES FOR ORGANISATIONS

Asbestos (Licensing) Regulations 1983

Control of Asbestos at Work Regulations 2002

Regulations require that any contractor intending to work with asbestos insulation, coating or insulating board be licensed. This is achieved by application to the HSE Asbestos Licensing Unit and involves the completion of a form $^90$, and a site audit from an HSE inspector. The cost is currently £909.

The minimum requirements are:

- To have one or more competent persons within the organisation who will have lead responsibility for the work,
- Have a written policy, organisation and arrangements which will satisfy the requirements of the Control of Asbestos at Work Regulations 2002

The application form concentrates on administrative detail, previous applications and enforcement actions. Only one question deals with experience; there is no question that relates to policy, organisation or arrangements.

The formal assessment includes questioning on theoretical knowledge and understanding of the current asbestos legislation, associated ACOPs and HSE Guidance, the practical aspects of the work, adequate management policies, systems, and record keeping arrangements. The extent of review and HSE expectations are set out in the Asbestos Licence Assessment Guide (ALAG)

The Notes and ALAG make it clear that a good understanding is required together with adequate arrangements for meeting them. Note 12 states that ‘it is not possible to obtain or renew a license without being able to demonstrate management/supervisory competence including recent training.’ Licenses are granted for one year to new applicants, and three years to those renewing. The application must be signed by a director, and is usually expected to be the managing director. In the case of a partnership all partners are expected to sign.

$^90$ ASB1 and accompanying notes from which the following data is extracted
British Safety Council
(www.britishsafetycouncil.org/pages/audit_advisory/au_avhome/audit.html)
The British Safety Council operates two auditing systems although these are not geared specifically to the construction industry:

- Five Star Health and Safety Management Audit
- OHSAS18001 Compliance Audit

These are wide ranging and designed to test achievement above the basic minimum.

Building Regulations: Self-Certification Schemes (see www.odpm.gov.uk/) in England and Wales. ‘Competent Persons’
There are a number of schemes under the Building Regulations which allow for self-certification of building work. This arrangement arose from a desire to reduce the administrative burden of the Building Regulations by allowing the self-certification by organisations and individuals judged to be competent. It should be noted however that it is the work that is self-certified, not the competency of the individual undertaking it. It is noted in the literature that this scheme should also help to tackle the problem of ‘cowboy builders’.

These schemes involve registration with a scheme provider accredited to EN 45011 by UKAS. This is followed by an office and on-site assessment to determine competency. In particular, several schemes commenced operation on 1 January 2005 in connection with domestic electrical work.(Part P of the Building Regulations). These require the organisation (designated as an ‘assessed enterprise’) to have ‘a health and safety policy and to carry out risk assessments’ Although an applicant must demonstrate that they have adequate Quality Supervisors, to stated levels of technical qualification, there is no mention of the ‘competency’ of those actually doing the work itself. (See letter to Safety and Health Practitioner p18 Jan 05). Review inspections by the scheme provider take place annually.

ODPM advises that these schemes are set up under their responsibility (and authority) to ensure compliance with the Building Regulations; ODPM emphasises that it has no authority to test competency over a broader range than that required to assure the work undertaken meets the requirements of the Regulations. The intent is to keep the schemes as simple as possible and avoid complex monitoring and assessment. ODPM points out that DEFRA has asked for waste disposal to be considered as a part of the assessment; this has been declined.

The consequence of this approach is that an electrical contractor deemed competent under a Part P scheme, cannot automatically be taken as competent as defined under CDM. This has the potential to cause confusion amongst electricians and those contractors employing them.

See also the entry below under ‘CORGI’

Building Regulations: Self-Certification Schemes in Scotland (www.clescotland.com)
The Construction Licensing Executive (CLE) was created in 2002 to regulate the construction trades in Scotland. CLE was borne from desire by reputable and legitimate industry to face up to the very real problem of the rogue traders or “cowboys” who have blighted the industry for too long. The public’s basic trust in the industry was being undermined and there was a need to restore confidence and provide a way of redress for the consumer.

A range of bodies have come together to give leadership and independent scrutiny to the CLE. They include the Society of Chief Trading Standards Officers in Scotland, the Scottish Consumer Council and Trade Associations along with support from the Scottish Executive and Scottish Enterprise.
The CLE created a licensing scheme for traders in the construction industry with the aim to have every firm in the construction trades licensed so consumers have a vetted supply of reputable traders. Both consumer protection and industry standards are at the core of the scheme. CLE sets principles for licensing/registration schemes for the construction and allied industries and acts:

- as an approver of schemes
- as an auditor and monitor of schemes
- as a final appeals body
- as an information provider to consumers

The assessment process includes minimum standards of technical competence for individuals, and a review of health and safety management system. It appears that these schemes could fit, with some adjustment, to meet the recommendations of Chapter 10 and the Core Criteria set out in Appendix 10.

An example of such a scheme (for self certified electrical work) is to be found on www.select.org.uk.

**CAPS**
The Construction Accredited Partnering Scheme (CAPS) is run by the National Federation of Builders (NFB). Its supporters include ConstructionSkills. The scheme covers competency in business structures etc as well as health and safety. A fundamental aspect of this scheme is that it recognises that different levels of verification and accreditation. Three levels are offered:

<table>
<thead>
<tr>
<th>First tier</th>
<th>CAPS Registered</th>
<th>Determines that an organisation has appropriate business structures, policies and insurances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Tier</td>
<td>CAPS Accredited</td>
<td>Directed towards those companies which play an active role in dealing with clients and other participants in the supply chain. Independently audited by UKAS registered body</td>
</tr>
<tr>
<td>Third Tier</td>
<td>CAPS Endorsed</td>
<td>In addition to the checks from the previous levels this includes supply chain management, training, benchmarking and continuous improvement. Intended for companies who are in partnering arrangements or which act as prime contractors on larger projects.</td>
</tr>
</tbody>
</table>

Audits are performed on site and in the office.

The descriptions of what is required imply that at the first tier, the requirements in relation to health and safety issues may fall short of a full ‘competency’ check. For example it is only at the second tier that ‘compliance with health and safety requirements’ appears. The third tier is very much a ‘best practice’ standard and is to be applauded.

NFB is utilising the CC/MCG sub contracting questionnaire, and the CHAS designer questionnaire.

91 The construction industry sector skills council
CAT
(see Highways Agency)

CHAS (www.chas.gov.uk)
The Contractors' Health and Safety Assessment Scheme (CHAS) began as an approved list ‘compliance’ scheme for local authorities and is managed by the London Borough of Merton. It now has over 6000 entries covering both public and private sector. Its prime aim is to avoid duplication of effort by applicants and clients when it comes to the process of assessing companies for inclusion on approved lists, or the initial stages of competency assessment.

The CHAS scheme is limited to health and safety issues, and is described as a ‘compliance’ scheme. The scheme is seen as the first of three stages in assessing competency. Clients are expected to add their own project specific enquiry (Stage 2) to the CHAS review in order to assess the formal competency of an organisation, and then to undertake their own monitoring of performance (Stage 3) to fully discharge their statutory obligations.

Clients subscribing to the Stage 1 scheme are able to search the database to determine whether contractors they may wish to employ are listed. Frequently clients will insist on contractors which wish to work for them applying to CHAS as a condition of inclusion on a tender or approved list.

Entry onto the database involves the completion of a detailed questionnaire by the applicant organisation, which is assessed by an independent assessor. Advice is usually given if the application is failed. A % of assessed applications are moderated to ensure that quality is maintained. Organisations are re-assessed at a maximum of 18 month intervals.  

CHAS has negotiated agreements with a number of other schemes to obtain mutual recognition or for CHAS to be used as the health and safety element where the other scheme lacks this component (for example as is the case with ConstructionLine). Reciprocal working agreements are to be applauded as they minimise duplication of effort.

Points of interest arising from the experiences of LB Merton in administering the scheme include:

- A high first time failure rate
- A significantly higher second time success rate but the belief also that many small companies find the leap from their existing situation to CHAS compliance too great in one attempt.
- Need for transparency in the process
- Need to recognise literacy and language problems

The CHAS management are strongly of the view that everyone should use one of the schemes available, and that these should recognise each other.

CHAS, in conjunction with the Construction Confederation and the Construction Industry Council, has extended the scheme to include designers from 2005; the format adopted for this assessment will also be used by ConstructionLine and Safe Contractor schemes, and is supported by the Major Contractors Group. The format for the assessment is described below under ‘Construction Confederation (CC) Designer Assessment’

CHAS is also developing Stage 2 assessment forms for the guidance of members in undertaking the next stage of contractor assessment.

92 currently being reviewed
The Author believes that CHAS is supportive of the Core Criteria outlined in Appendix 10.

CHAS is self funding through the fees received. These may be from clients and/or contractors depending upon whether the contractor was put forward by the client, or applied of their own accord.

Constructionline (www.constructionline.co.uk)
This scheme is owned by the DTi and is stated to be a contribution to the Rethinking Construction agenda. It is managed by Capita Business Services. The scheme is the UK's largest register of construction contractors and consultants for pre-qualification purposes, with over 10000 on the register. Constructionline is 'designed to streamline procurement procedures and save valuable resources in the construction industry rendering it more efficient and effective'.

The pre-qualification process assesses aspects of a company’s competence (eg financial adequacy, insurance compliance). Clients have direct access to the database. Until recently this process excluded health and safety data; this is now included however, either by registrants using the Constructionline form, or by applying to CHAS (see above) inclusion on which is recognised by the scheme. However, if the CHAS route is chosen (which is encouraged by Constructionline) the data submitted is assessed; if the Constructionline form is completed no assessment of the data occurs- this is left to the client. Recent agreements however will involve CHAS becoming the accepted route for future applicants.

The questions posed by Constructionline ‘take account of Government’s current understanding of EU public procurement legislation and the Local Government Act’.

Construction Confederation (CC) Designer Assessment
This scheme, promoted with the CIC and used by CHAS, is intended to remove the variations in requested information from designers, and to provide guidance as to what information should be available or provided in response to a particular request. It is set out in the form of:

<table>
<thead>
<tr>
<th>Specific H&amp;S Issue</th>
<th>What CC wants you to be doing</th>
<th>What evidence the pre-qualification requires to be available (if requested)</th>
<th>What is not required</th>
<th>The questions you are likely to be asked by those employing you</th>
</tr>
</thead>
</table>

It is emphasised that inability to provide evidence of all material requested will not necessarily preclude a company from a select list. What will be required however is evidence that they are working towards achieving compliance. This concept, which also features in the MCG sub-contractor scheme, is discussed in Chapter 10.

The Author understands however, that the CC are willing to adopt the Core Criteria outlined in Appendix 10 in lieu of the above.

CORGI (www.corgi-gas-safety.com/)
The Ronan Point apartment block in London suffered a partial collapse (with 5 fatalities) in 1968, as a result of a gas explosion In order to protect the public from unsafe gas installations CORGI was founded in 1970 as the Confederation for the Registration of Gas Installers, and was given the task of ensuring that gas work was carried out safely.
Initially, gas installers could become affiliated to CORGI on a voluntary basis. In 1991, however, HSE asked CORGI to maintain a register of competent gas installers in the UK and CORGI became the ‘Council for Registered Gas Installers’.

Registration is now a legal requirement for businesses and self-employed people working on gas fittings or appliances (stemming from the Gas Safety (Installation and Use) Regulations 1998). Around 47,000 gas installation businesses employing approximately 98,000 gas fitting operatives are currently registered. Registered installers are permitted to self-certify that an installation complies with the Building Regulations.

**Exor Management Services** ([www.exorgroup.co.uk/](http://www.exorgroup.co.uk/))

Exor run a commercial scheme which assesses companies across a range of industries. The check process includes health and safety management for areas of work considered to have ‘risk’; construction falls into this category. The database is open to contractors and designers. There is no audit at the place or work or on site but reliance is placed on certification by others where relevant eg CORGI. Exor do not have any reciprocal agreements with other schemes.

**Highways Agency**

The Contractor Assessment Tool (CAT) is used by the HA to assess and monitor their major contracting consortium. It is operated on a self assessment basis, with registrants invited to judge their own position on a scale of 0-4. ([www.ha.gov.uk](http://www.ha.gov.uk)).

HA has recently insisted (May 2004) that the CSCS card be held by both contracting and design staff, and that the latter should not rely on occasional visitors cards by way of compliance. HA have stated that they are committed to the concept of a fully qualified workforce.

HA also require the use of competent persons on certain aspects of their work, eg on traffic management schemes, where competency has to be demonstrated against UKAS accredited procedures (Volume 1 of the Specification for Highway Works).

**House Builders Federation (HBF)**

The 12 largest house builders (which account for around 50% of housing output) have agreed to commit themselves to the adoption of the CSCS card for themselves and their supply chain. Registration is due to be complete by 2007, and full card acquisition by 2010. If this is successful it will bring on board a significant number of self employed from the biblical trades.

**LINK-UP** ([www.link-up.co.uk](http://www.link-up.co.uk))

This scheme has been developed by Achilles Group for the rail industry. It has a number of stated aims which include improving the quality of information, reducing bureaucracy, maintaining current data, and assisting the industry comply with safety requirements.

The scheme is open to any company (contractor or designer) which successfully completes a questionnaire. Current membership stands at around 2000 companies of all sizes. Applicants are placed into one of three categories- ‘R’ indicating only that the organisation has expressed an interest in registering in order to gain work in the specified area, ‘A’ indicating that the organisation is considered safety critical and has been audited by Achilles, and finally ‘Q’ indicating that the organisation is considered to be business critical. The weighting given to specific sections of the questionnaire varies according to work group. Applicants are expected to update their details annually. Railway clients have access to the scoring of the questions.

It has been confirmed by Achilles that this is not a ‘competency’ scheme. The safety critical check carried out by Achilles for ‘A’ category registrants relates only to a demonstration of
compliance with railway group standards and not to CDM competence. Hence those selected to go on this list tend to be organisations that work on track-side or permanent way activities. This ties in with the SENTINEL system described below under individual schemes.

**Major Contractor’s Group (MCG) Sub Contractor Assessment.**
(www.mcg.org.uk).

The MCG has produced a standard format of questionnaire for sub-contractor assessment as a means of encouraging a unified approach. This questionnaire is in the format of guidance for those being assessed. The intent is that nothing other than information mentioned on the form should be requested, thus avoiding the endless variations suffered by these companies. The form is set out in a similar format to the CC form for designers. (see above).

As is the case for the CC Designer’s form, it is emphasised that inability to provide evidence of all material requested will not necessarily preclude a company from a select list. What will be required however is evidence that they are working towards achieving compliance.

MCG recognise that although employing parties will inevitably use their own questionnaire, it is hoped that they will conform to the essentials of this table.

The Author understands that MCG is supportive of the Core Criteria outlined in Appendix 10.

**National Electricity Registration Scheme (NERS)**
(http://www.lr.org/market_sector/utilities/NERS/)

Lloyd’s Register operates, on behalf of the UK Distribution Network Operators (DNOs), the National Electricity Registration Scheme.

The scheme represents part of an ongoing process to introduce competition into the electrical services market. Under the scheme Lloyd’s Register perform technical assessment of the Service Providers who elect to be assessed for accreditation for contestable works associated with the installation of electrical connections.

The scheme is rigorous in its application and operates to the Lloyd’s Register safety Management System and provides organisations and individuals with certification of competency.

**NHBC Scheme**

The NHBC operate a scheme in accordance with the Association of British Insurers’ ‘Making the Market Work’ (see ABI in Appendix 8).

The Author believes that NHBC is willing to adopt the Core Criteria outlined in Appendix 10.

**OCR 1322**

This scheme is operated by Hardaker & Associates on behalf of Bury Chamber of Commerce, for contractor SMEs. It originated from an identified need for businesses to have access to appropriate training to allow them to qualify for modern apprenticeship schemes. The construction element (OCR 1322) was developed from the general scheme (OCR 509) following the introduction of CDM.

It is based on the demonstration of health and safety competence via an award made by the Oxford, Cambridge and RSA Examinations Body (hence the acronym OCR 1322). The award is made to the business itself rather than to individuals and is performance based.

To obtain an award the business undertakes a period of off the job training and business development, based on an audit of their business by Bury Chamber of Commerce, and submits data to an assessor. The training and development is geared to the actual business needs. An assessment is also made in respect of the commitment to continuous health and
safety improvement. The overall period of assessment is between 26-39 weeks depending upon the size of company. The scheme involves companies working towards OHSAS 18001.

**Quality Mark**
Replaced by Trust Mark.

**Safe Contractor ([www.safecontractor.com/](http://www.safecontractor.com/))**
This scheme is sponsored by National Britannia Ltd and offers a registration service for contractors. The literature indicates that around 6000 organisations are registered. The assessment of applicants is achieved through a questionnaire; no site audit is performed unless requested by the client. The questionnaire is varied for organisations employing less than 5 persons. The scheme indicates that preferential rates may be achieved from insurers and it offers a number of subsidiary support services. A reassessment is carried out at yearly intervals.

The scheme indicates that registration signifies ‘competency’ in the area of work identified.

The scheme is actively seeking other similar schemes with which it might offer reciprocal registration, and in the case of Designers has adopted the format promoted by the Construction Confederation and utilised by CHAS and ConstructionLine.

**SHEQual ([www.echarris/shequal](http://www.echarris/shequal))**
This scheme is organised by EC Harris (ECH) and relates to the health and safety management (including best practice) of contractor organisations. It is a ‘closed’ scheme in that it is only available to clients of ECH and the contractors that work for these clients. It currently has a membership of around 3000. Applicants may nominate themselves or be put forward by clients. In the former case this is often done in order for the company to obtain a general check on their management systems, rather than a wish to be on the database per se. In this connection, it is reported that the drivers for this scheme include registrants obtaining improved insurance premiums.

The scheme operates by applicants being site audited by ECH under a number of health and safety headings; successful applicants are placed on a secure web based database accessible to clients of ECH. Those on the database are re-audited on an annual basis. The scheme is recognised by CHAS although not vice versa.

The audits are implemented by ECH in-house auditors all of whom are professionally qualified in healthy and safety, and are monitored in their work. A renewal audit is carried out annually. There is an implicit assumption that standards will rise over time.

**Specialist Engineering Contractors (SEC) Group ([www.secgroup.org.uk](http://www.secgroup.org.uk))**
The SEC represents six individual umbrella bodies as noted below. Each has its own pre-qualification scheme, all of which involve independent audit. It is mandatory for member companies to join a scheme.

Audit frequency varies between schemes and is largely determined by cost.

SEC has been leading the development of ‘Health and Safety Pre-Qualification Criteria’ ie the Core Criteria, such that meeting these criteria should enable a contractor to be recognised by any other pre-qualification or tendering scheme. This is similar in format to the MCG proposal for sub contractors, and the CC scheme for designers.

SEC is willing to adopt the Core Criteria outlined in Appendix 10 in lieu of their current question set.
TrustMark (successor to Quality Mark) [www.trustmark.org.uk](http://www.trustmark.org.uk)
This scheme is sponsored by DTi, with the intent of providing house holders with some assistance in the identification of competent builders and specialist contractors. Its prime aim is to minimise opportunities for the ‘cowboy’ operator. It was launched in March 2005 and replaces the previous ‘Quality Mark Scheme’.

It is not directly relevant to the CDM regulations as householders are not duty holders and are not obliged to ensure those they employ are competent or adequately resourced. It does nonetheless provide an indication of competence in health and safety matters.

To join the scheme involves the applicant in a commitment to a range of good business practices, demonstration of financial probity, appropriate insurances and compliance with health and safety legislation. Members are expected to complete a ‘health and safety statement’ signed by the Managing Director. Sub-contractors are also expected to be members or demonstrate equivalence.

The requirements of this scheme in respect of ‘health and safety’ do not match those proposed in Appendix 10 as the scheme is geared towards customer protection rather than ‘competency’. The consequence of this is that members of TrustMark will not be able to tender this as proof of competence and will have to demonstrate this in some other way, either one a one-off basis to a specific engager, or by joining another ‘competency assessment scheme’.

UVDBVerify ([www.achilles.co.uk/Group/News/UVDB+Verify.htm](http://www.achilles.co.uk/Group/News/UVDB+Verify.htm))
This is the Health, Safety, Environment and Quality Assessment process used within the UK utilities industry in order to source suitable suppliers. It is operated by the Achilles Group (see also LINK UP). The scheme involves applicants being assessed against on site their own stated management system. Scores are placed on a database accessible to clients, together with the overall average score for all applicants. The scheme does not classify registrants as ‘competent’ but leaves it to the Utilities to judge on the basis of the scores. Registrants are reviewed annually. The database holds around 800 suppliers at a cost to them of between £750-1200.

Schemes for Individuals

Assuring Competence in Engineering Construction (ACE) ([www.ace.uk.net/](http://www.ace.uk.net/))
(see also Client Contractor National Safety Group)
This scheme operates in the engineering industry and is an initiative which is supported by all areas of engineering construction in the UK: clients, contractors, the National Joint Council and the unions. The vision is that within five years the site-based workforce of the Engineering Construction Industry has validated competence across all disciplines against national standards.

The ACE card proves that an individual can perform their job in a safe and competent manner. It requires individuals to obtain a S/NVQ level 3. Health and safety elements are part of each of the three voluntary qualification units.

The overall cost per employee is around £1000 although this can be negotiated, and there are grant refunds available but it appears that at present these vary considerably depending upon whether the application come from within Wales (none) England ( up to full refund) or Scotland (currently approximately £500).

ACE currently covers a limited number of trades but others are being incorporated in future phases. Membership currently stands at around 1600.
The two engineering sector schemes (ACE and CCNSG) are not currently affiliated although there are talks in hand.

**Association for Project Safety (APS) [www.aps.org.uk](http://www.aps.org.uk)**

(unti1 November 2004, the Association of Planning Supervisors)

The APS has established quality assured standards for planning supervisors. They now represent a wider range of project safety interests and are in the process of establishing a set of registers to identity those members who have attained a known standard in planning supervision (to be replaced shortly by ‘Co-ordinator’ in accordance with the revised CDM regulations), design, or other skill areas as decided from time to time. Entry onto these registers will also be via a quality assured procedure.

APS has recently validated and accredited its first training provider for the provision of courses in ‘The management of planning supervision’ thus setting a benchmark standard.

See also Appendix 8.

**Client Contractor National Safety Group (CCNSG)**

([www.ecitb.org.uk/learning_&_development/adult_learning/safety_passport.cfm](http://www.ecitb.org.uk/learning_&_development/adult_learning/safety_passport.cfm))

This scheme operates in the engineering industry and is operated under the auspices of the Engineering Construction Industry Training Board. This is a statutory levy funded body similar to CITB.

The aim of the CCNSG Safety Passport Scheme is to ensure a basic knowledge of health and safety for all site personnel to enable them, after appropriate site induction, to work on site more safely with lower risk to themselves and others.

In the early 1990s a consortium of major industrialists from the power generation, steel, oil, gas and chemical industries recognised the need to train their contractors in basic safety and to standardise their basic safety training. They devised a core curriculum which became the foundation of a training scheme which has grown to national proportions.

The scheme, which results in the award of a ‘Safety Passport’ to contractor site personnel, is monitored and controlled by a national steering group known as the Client/Contractor National Safety Group (CCNSG). There is also representation from contractors, training providers and trade unions. The CCNSG meets regularly to ensure that standards are being maintained and that the content of the training scheme continues to meet current safety legislation and current safety practices.

The two-day training programme covers ten modules:

- Introduction to Health & Safety Law and Permits to Work
- Safe Working Practices and Scaffolding
- Safe Access and Egress
- Accident and First Aid Procedures
- Fire Precautions and Procedures
- COSHH and Personal Protective Equipment
- Manual Handling
- Noise
- Working with Cranes and Heavy Equipment
Excavations

There is an additional day for supervisors, which emphasises the key role that supervisors have in securing health and safety including safety communications and risk assessments.

The course itself involves a significant amount of trainee participation. The award of the Safety Passport is subject to the candidate successfully completing a 100 question multiple-choice test paper, with the question content and level set by the participating client safety experts on the CCNSG. Successful candidates receive a pass that is valid for three years. To assist the administration of the scheme, all records are computerised on a database maintained by the Engineering Construction Industry Training Board (ECITB).

All training providers are recommended by an industry client and are subject to review. The training courses are delivered using common training materials and tutors must be approved and registered. The high level of quality control includes auditing by an independent auditor and training costs are maintained at a minimum level.

70 Training Providers have been approved by the ECITB to deliver the training on behalf of the CCNSG.

Since the start of the scheme more than 350,000 passports have been awarded to client and contractors’ personnel. The passport is transferable to all participating clients and sites.

As of July 2005 this passport no longer provides an exemption from the CSCS health and safety test.

Considerate Constructors’ Scheme (www.ccscheme.org.uk)
The Considerate Constructors Scheme (CCS) is a national initiative designed to improve the image of construction through better management and presentation of its sites, over and above statutory requirements. (Given the link between ‘good management’ and ‘good safety’ it is considered by the Author that in its own way this is a reflection of likely competence). Applicants are expected to conform to an eight point code of practice, which includes a safety element. Sites are monitored by scheme assessors, and scored according to a set 5 scale format. In the 7 years of operation, average scores have steadily risen, as have the number of participants. The scheme is jointly owned by the Construction Confederation, Construction Products Association, and the Construction Industry Council.

Its use is mandatory for central government sponsored sites and others are considering following this lead; the scheme features in the OGC ‘Common Minimum Standards’.

Construction Industry Council (CIC) Designer Competence
CIC in conjunction with SiD (Safety in Design Ltd) have developed a competency based assessment of individual designers through a specified knowledge base, and workplace competency assessments. This was formally launched in April 2005. CIC considers that it is now down to industry to take this forward. The four key construction ‘design’ institutions within CIC (CIBSE, ICE, IStructE and RIBA) clearly have a role in this respect.

Construction Skills Certification Scheme (CSCS)
This scheme relates to individuals rather than organisations and is managed by CITB on behalf of CSCS Ltd. The scheme emerged from the Construction Summit of 2001 and has been driven through in particular by the Major Contractors’ Group and the National Contractors’ Federation.

CSCS is controlled by a management board whose members are from The Construction Confederation, Federation of Master Builders, GMB Trade Union, National Specialist Contractors Council, Transport and General Workers Union and Union of Construction Allied Trades and Technicians, CITB ConstructionSkills, Construction Industry Council, Construction Clients Group.

111
Observer members include the Department for Trade and Industry and the Health and Safety Executive.

CSCS aims to register every competent construction operative within the UK not currently on a skills registration scheme. 670,000 have passed the health and safety test, and 735,000 are registered with CSCS or affiliated cards; it is therefore by far and away the biggest ‘competence’ scheme in operation.

Registrants receive an individual registration card (similar to a credit card) which lasts for three or five years. The scheme has affiliated to it a number of pre-existing schemes eg SKILLCard for those working in building services. These are gradually being aligned to the CCS scheme and differences and exceptions removed (references to ‘CSCS’ should be taken to include the affiliated cards).

The prime aim of the scheme is to recognise competence in a construction related occupation. The CSCS card provides evidence therefore that the holder has achieved a site competency, as measured by a NVQ/SVQ, and has satisfied a health and safety test. The health and safety test is taken at driving test centres, using multiple answer questions, and utilising touch screen technology. Questions are pre-published and consist of general health and safety questions supplemented by questions geared towards the occupation of the applicant. The cost of the test is covered by CITB grants, but this is currently restricted to contractors who pay the levy.

A CSCS card holder is deemed to be ‘competent’ within their field of work ie it is a skills card. It should be remembered that the health and safety test is only one part of the overall requirements for a card.

The fact that the scheme is geared around site-based competence (current grandfather rights and the like were being rapidly being phased out but see comment below) demands a significant number of experienced assessors. CSCS acknowledge that although the scheme infrastructure could cope with the estimated industry workforce, the bottleneck would be the likely inability of assessment centres to assess applicants for NVQs within a reasonable timescale. This would be the critical aspect of future expansion and the aim to sign-up the entire workforce although OSAT would assist in the alleviation of this problem.

Although originally devised for operatives, the scheme has been extended to include managerial staff eg supervisors, managers, and designers. A number of institutions (BIAT, CIOB, ICE, IHIE and RICS) have mapped their membership requirements against the NVQ/SVQ based requirements of the scheme, and apart from a limited number of exceptions, members of these institutions may now obtain a CSCS card subject to taking the health and safety awareness test. The card awarded is either the ‘supervisor’ or ‘manager’ grade. Alternatively, design team members who visit site on an occasional basis may obtain a ‘visitors’ card for which only the health and safety test is required.

It should be noted that the health and safety test is an ‘awareness test’ and is designed to give those on site an adequate background for the site-based task they perform. Hence it does not infer that a designer who has passed the test, is a competent designer- only that they have the necessary competency to visit site. The scheme does have a ‘civil and structural engineering designer’ card but this does not have a professional route exemption and has now lapsed.

93 also available through the OSAT route (On-site Assessment and Training).
94 following the Safety Summit in February 2005 CITB announced that the cost of the test is to halve.
95 On-site assessment testing
A pilot scheme was undertaken in 2004 whereby undergraduates sat the test at three universities; a high pass rate was obtained at all three centres. It is not known at this stage if this concept is to be taken further.

Organisations that have a significant proportion of their workforce registered under the scheme are awarded a certificate; these are graded- blue, silver or gold- depending upon the proportion holding full CSCS or affiliated cards.

CSCS is aware of the relatively low number of traditional trades that have cards. (typically 9-18%). This will need resolution if the scheme is to penetrate throughout the industry. An initiative sponsored by the major house builders to utilise CSCS as the norm will assist in this respect.

The scheme received a boost following the Safety Summit of February 2005 in that it is to become part of a menu of mandatory health and safety measures applicable to central government clients. These are now included within the OGC Common Minimum Standards.

Supplementary Notes to CSCS: At the time of writing (July 05) three significant announcements have appeared in the press. Firstly that CSCS is to become more independent of CITB and will control the health and safety test. Secondly, that a significant number of operatives are to be entered into the scheme as means of giving it a boost. This re-opens the ‘grandfather rights’ door again. Thirdly that CSCS is to appoint a CEO. CSCS is also pressing government to make the card compulsory on public sector sites, for high risk trades. In a letter to the Author (September 05) CSCS states that the initiative with the major house builders will allow a further 200,000 mostly self-employed to come within the scheme. They state that temporary relaxations have also been introduced to encourage the biblical trades to join. This is all geared towards creating a critical mass that will then progress under its own momentum. CSCS acknowledge weaknesses within the scheme but emphasises the enormity of the task and the need for positive support at this stage.

CITB-ConstructionSkills (www.citb.co.uk)
CITB-ConstructionSkills has developed a course for designers, (Health and Safety in Construction Design) based around the learning aims of the ‘safety in design’ project sponsored by CIC and initiated by Safety in Design Ltd (SiD). It is hoped that this will become the benchmark course for designers and will be quoted as a partial means of demonstrating competence. The course is currently of 3 days duration but is to be reduced to 2 days as a result of feedback from delegates.

CORGI
This scheme is applicable to both organisations and the self-employed. It is described under ‘schemes for organisations’

Institution of Civil Engineers (ICE) Health and Safety Register
This register is one of a number operated by the ICE, created in order to assist clients and others to identify those who have demonstrated a particular competence in a specific subject area. The entry requirements are rigorous and require a minimum of 10 years experience. Candidates are assessed by submission, interview and multi-choice question test.

The register is open to corporate members of any construction related institution. To date it has had difficulty in attracting members. In the Author’s view this is a worthy scheme but currently it suffers from the lack of an obvious driver to encourage applicants. One such driver in the future could be its use as a qualifying benchmark for Co-ordinators.

^Located on www.cic.org.uk
Institution of Planning Supervisors (IPS)
See Appendix 8.

SENTINEL
(see also LINK-UP)
This is the railway industry’s formalised individual competence scheme for all those wishing to access the trackside. It is highly developed, using electronic processes and tracking in order to allow easy access by those employers accredited to LINK-UP and to prevent fraudulent acquisition. It is only concerned with trackside safety and does not set out to replicate the health and safety test of CSCS for instance. The scheme is currently run by Capita.

SENTINEL cards indicate the essential competencies required to work track-side and also supplementary competencies for specific activities (eg high voltage line work). Drug and alcohol testing is also included\(^{97}\). Cards are checked in a number of ways including random site inspections. The philosophy is ‘no card- off site’. The card is able to track the employment and competency history of an individual. The scheme is self financing and costs around £2.75m per annum.

Training for the recognised competencies is delivered by training organisations accredited by the Rail Training Audit Service; this too is self financing through training fees. All trainers work to a standard syllabus provided by Network Rail. There are strict rules for compliance; failure to comply with these will result in accreditation being withdrawn. All training has to be sponsored by an employer.

Structural Engineers Registration (SER) (www.ser-ltd.com)
This new scheme has been established to ensure the competency of those undertaking certification of design in respect of the Building Scotland Act 2003. The concept is likely to follow in England and Wales.

The scheme has rigorous quality control and involves mandatory re assessment of members at a maximum of five yearly intervals. CPD records have to be kept as part of the documentation.

It is not compulsory to join such a scheme, as building regulations submissions may be made to the Building Control Officer in the traditional manner. However it is seen as likely to be beneficial for many clients. The Act envisages a number of such schemes, of which this is the first. The concept is likely to be extended to electricians and plumbers in due course.

COMPETENCY SCHEMES IN OTHER COUNTRIES

Irish Republic
Irish legislation\(^{98}\) requires all construction workers to have received a minimum standard of health and safety awareness training via the FAS\(^{99}\) Safe Pass scheme, or similar. These standards are demonstrated through the Safe Pass Health and Safety Awareness Training Programme (run by the FAS) and which sets out a syllabus of training, successful completion of which entitles the applicant to the Safe Pass Registration Card. False use of a card is a criminal offence. Visiting professionals are also encouraged to obtain registration.

In addition, those working on specified work activities scheduled in the Regulations must have undertaken training approved by FAS under the Irish Construction Skills Certification Scheme and be in possession of CSCS registration cards.

The regulations require the Project Co-ordinator (Construction) to monitor this system on site.

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\(^{97}\) the card also features a number of other facets which would be of benefit to CSCS or equivalent eg symbols to indicate limited experience, colour blindness, or need to be accompanied

\(^{98}\) Safety Health and Welfare at Work (Construction) Regulations 2001

\(^{99}\) FAS -Irish training employment authority
Those providing the training have to meet minimum standards of competency themselves and be registered as such.

There are therefore similarities with the UK CSCS approach although this does not at present distinguish between general and specified work activities, nor does it have any statutory standing or control.

An approved course costs around 80-100 euro (approx £55-£65) and the card a further 19 euro (approx £12). It is understood that these costs are usually met by employers.

The Irish Construction Safety Partnership is also working towards registration of competent project supervisors and a pre-qualification system for specialist contractors.

The ‘Safe T Cert’ also operates in the Republic, and is described below.

**Northern Ireland**

Northern Ireland has combined in a collaborative initiative with the Republic to produce the ‘Safe-T-Cert’ management system. ([www.safe-t-cert.ie](http://www.safe-t-cert.ie)) Clients are encouraged to include this as a requirement for the construction phase. This scheme, or others (eg Worksafe[^100]), that are equivalent to Safety-T-Cert and based on recognised management standards, will be compulsory for all public sector works from April 2006. This requirement derives from the **Buildsafe** initiative.

The Safe T Cert scheme involves an applicant organisation registering themselves with the scheme against the scheme requirements, and when they consider themselves to be at an acceptable level of compliance to request an audit (of office and site locations). This audit must be requested within nine months of registration. Audits consist of an assessment of documentation, site inspections and an interview. Participants are validated annually to check that improvements are being made. A full audit is undertaken every three years by scheme approved auditors who are appointed from a panel provided by IOSH.

The following aspects of an organisation are examined as a minimum standard:

**Accidents:** The applicant must have achieved an average for fatal and serious accidents, which is at the level of or better than the national average.

Inspections: The applicant must have an internal system for health and safety inspections, with appropriate record keeping and follow-up procedures.

**Closures:** No closures, either by Court Order or voluntary in the last 12 months. This is covered by documents 9a and 9b. Details of any enforcement authority activities during the previous 12 months, or those pending, and information on voluntary closures.

If this requirement is not met, certification cannot be granted.

**Training:** At least 15% of site operatives should be on the appropriate register (Construction Skills Register for Northern Ireland and Safe Pass Register for Republic of Ireland). At least 50% of scaffolders and plant operators should have competency cards or certificates for training which includes health and safety training.

At least 50% of the site managers and health and safety advisors/officers must be certified in Managing Safely in Construction (IOSH).

The skills requirements must be met by the end of the 1st year of certification.

[^100]: Confederation of Associations of Specialist Engineering(NI)
Auditors of this scheme must be IOSH registered safety practitioners, have appropriate industrial experience and have completed Safe-T-Cert auditor training. They are drawn from a panel administered by IOSH

**Republic of Ireland only:**

**Site Safety Representatives:** All sites under the control of the applicant with 20 operatives or more must have a trained safety representative. 50% of the safety representatives must be trained.
This requirement must be met by the end of the 1st year of certification.

**Required documentation:** All firms have to supply a stated list of documents which varies depending upon size. This includes the Policy, Organisation and Arrangements.

Individual workers are required to possess a Construction Skills Register card for all government clients; private sector clients are being encouraged to follow suit. Out of a total workforce of 60,000, approximately half is signed up. This accreditation has a reciprocal standing in the Republic.

**USA**

The American health and safety regulator (Department of Labor, Occupational Safety and Health Administration-OSHA) actively supports the concept of partnerships and liaisons with industry organisations as a means of achieving higher levels of competence, leading in turn to improved records of ill health and accidents. It is recognised that there needs to be both benefit to the regulator and also incentive to industry for these schemes to be accepted and add value. The benefit to OSHA is usually in the form of good publicity and engagement with industry and a reduction in the time spent by inspectors visiting these organisations (see below); for industry the incentives include accreditation to a recognised competency standard, and hence being seen as a best practice employer, a reduction in civil claims, and a guaranteed reduction in formal visits from OSHA and in penalties, should a breach occur. The degree of these incentives varies with the scheme and level of entry.

There are a number of schemes, and these operate at different levels of accreditation. (an example may be seen on www.osha.gov/doc/agcpartnership.html). These differing levels of accreditation allow for the participation of all company sizes, and for progression over time. All schemes operate via industry organisations, which in the UK would be equivalent, for example, to the MCG or CECA.

Applicants assess themselves via a questionnaire which is validated by the industry organisation to which they belong; eligibility is renewed on an annual basis. For entry to the highest level (for example, Blue or Platinum depending upon the scheme), and hence to benefit from the optimum incentives, applicants undergo a comprehensive on-site audit.

Hence, although these schemes are agreed with OSHA, they are then implemented by the industry body itself. The schemes include grounds for terminating the partnership should non-performance exceed certain trigger levels.

Note: this USA concept is similar to that of the MCG and HBF Charters, and the adoption of the CSCS card as a requirement for those working on site, although in the UK there is no direct partnership with HSE and no formalised incentive.
CONSTRUCTION INDUSTRY UMBRELLA BODIES

This appendix contains short notes on the principal points raised during discussions with selected umbrella bodies. Not all bodies could be seen in the time and budget available.

Association of British Insurers (ABI)
(The ABI operates across many industries but its procedures, as described below, encompass the construction industry)
ABI operate the ‘Making the market work’ initiative. This is an initiative for ‘the assessment of Trade Association Health and Safety Schemes’ which originated from the concerns regarding ELI cover and escalating premiums. ABI has distilled best practice from a number of industry schemes and set out what it considers to be the key elements. ABI does not pass or fail trade schemes (it is not an accreditation process) but offers comments for improvement where appropriate.
The Department of Work and Pensions is keen for there to be some link between health and safety management and insurance premiums. The literature from ABI states that ‘ABI has now designed a process which will improve the flow of relevant information from trade bodies to EL insurers, so that good practice can be properly recognised in the terms offered.’

Association for Project Safety (APS)
(previously the Association of Planning Supervisors)
The APS is the leading representative body for ‘planning supervisors’. It is possible to join as an individual member or as a corporate member. For individuals the APS sets the following entrance requirements:
Membership is open to an individual who:

- has a professional qualification in one of the disciplines associated with design team membership, construction or health and safety, holds a valid registration certificate or qualification from such individual's particular professional body and has a minimum of five years' relevant post qualification experience; or
- has 10 years' experience, not including training or apprenticeship, in the construction industry and a knowledge and experience of design procurement and construction;

and has passed such tests or courses on health and safety in the construction industry as the Executive Committee may require from time to time for admission as an Ordinary Member of the Association.

The examination must be taken by anyone applying for Ordinary Membership. This is an open-book, multi-choice format, with six weeks in which to complete it.

There is a further grade of ‘Fellow’ achieved by a combination of experience, written submission, exam and interview.
APS also accredit appropriate bodies to provide training for planning supervisors. Although the delivery organisation develops the course detail, it is to a framework set out by APS. The specified syllabus is set out in terms of headline objectives, to set standards using ‘Ability to’ statements. Successful completion leads to the award of the APS Certificate in the Management of Planning Supervision.
Construction Industry Council (CIC)
The CIC is the representative body for the industry’s professional bodies. It is a partner with CITB in the new ConstructionSkills, the Sector Skills Council for this construction industry. CIC manages on behalf of the industry the higher level technical, managerial and professional Occupational Standards and NVQ/SVQ framework for the built environment. Much of CIC’s recent work in this field has focused on the development and use of occupational standards. This has included the development of a central mechanism for inter-relating academic, vocational and professional qualifying systems across the built environment. CIC are keen to see occupational standards be adopted as the foundation of competence.

CIC has backed the designers’ questionnaire being used by CHAS.

Construction Industry Training Board (CITB)
CITB is a partner with CIC in the new ConstructionSkills, the Sector Skills Council for this construction industry, and as such now has a wider audience than the traditional contractor organisation. It has a unique place in the industry in view of its statutory function and ability to impose a levy on all construction organisations with a wage bill in excess of £61k. In return, all construction organisations, of any size, are entitled to grant-aided training provision. CITB estimates that the benefit to participating organisations is at a gearing of 1.61. The training provision is recognised throughout the industry as setting the standard.

Civil Engineering Contractors Association (CECA)
CECA has demonstrated its commitment to an improved safety record through its ‘Health and Safety Action Plan and Strategy’. In particular, it is committed to a fully qualified and certified workforce by 2007, and is understood to be on target in this respect. Sub contract labour is included within this aim.

CECA state that they are committed to unifying registration schemes under the CSCS in support of the Construction Confederation.

In a survey of civil engineering contractors, reported in October 02 concern was expressed at the cost and proliferation of pre-qualification databases. The wish was for these to be rationalised to reduce costs. CECA would be concerned at self-certification in view of the unregulated nature of the industry; audited schemes are preferred.

Construction Clients Group (CCG)
CCG encompasses the public and private sector, and has both individual companies and also organisations as members.

CCG expressed broad (informal) support for the concept of the Core Criteria as a means of reducing variation in questions asked. They are concerned that these should be appropriate to SMEs and would want to see clear guidance in this respect. CCG also consider that if competency accreditation schemes are to be proposed there should be some form of overarching body or licensing to ensure standards and acceptable procedures. It would also be necessary to ensure that the auditors used were of an adequate standard.

CCG are also concerned at the delivery by institutions and academia of capability in health and safety issues.

The CCG has advised its members to include contract requirements demanding CSCS accreditation.

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101 This section draws on CIC sheet ‘The CIC and its life long learning agenda’
102 excluding the M&E sector which is considering commencing its own levy scheme
103 Supply Chain Relationships in the civil engineering industry
Construction Confederation (CC)
This is an overall umbrella body encompassing a number of the organisations covered elsewhere in this section.
CC is fully supportive of CSCS. The view is that whatever its shortcomings, it is the scheme to support in this initial phase. It is considered that the industry should concentrate on this, with inconsistencies being resolved at a later date, and before branching out into other areas such as corporate responsibility, or best practice.
CC was keen to emphasise that CSCS is a skills card scheme; health and safety knowledge forms only one part of this. The health and safety test is considered a baseline assessment. It was noted that there was no driver for SMEs to take up the CSCS card unless working for larger supply chains. CC considers that there needs to be a change in perception at this end of the market, such as is the case with CORGI. (In this case, the public can see a risk to themselves. Unfortunately, in the general case they do not).
The biggest problem at present was perceived to be requests for information which was disproportionate to the scale of contract and risk profile.
CC was generally supportive of the concept of self regulation, if within an appropriate framework. They did not believe that peer group auditing would function adequately.
CC recognised the need to grade standards according to size of organisation; too high a threshold would lead to disenfranchisement.

Federation of Master Builders (FMB)
The FMB is the largest trade organization in the construction industry with some 13000 members. It is estimated that around 60% of these employ less than 5 persons, and that around 70-80% of work undertaken is for domestic clients.
FMB support CSCS as a competence test and believes that all positions in the management chain- from MD downwards, should have demonstrable evidence of this.
FMB also believes that schemes must be audited.
The FMB has a number of concerns in respect of the ability of the industry to improve its training record viz:

i) the high number of self-employed is proving to be a barrier to progress. No ‘engager’ wishes to train these people, and they fall outside the scope of CITB.
ii) government is proving to be a poor client (mentioned by others also).
iii) the capacity of training is limited at NVQ3 as this contains more management than previously was the case, and, as a consequence, small organisations do not have the opportunity to provide workplace experience. FMB believes there is a need for an intermediate level NVQ with less management.
iv) college funding is insufficient to allow appropriate investment

FMB are supportive of the proposals within this report but made the following points:

- The need to define what a firm needs to show in order to have proof of competence.
- The desirability for an ‘ACOP’
- The lack of a driver for the domestic market
- The need for Associations, such as FMB, and with new schemes such as TrustMark, to see how health and safety can be integrated into everyday projects

Institution of Planning Supervisors (IPS)
This institution is not as well known as the APS and has a smaller membership (around 400). Members are obliged to hold an appropriate academic qualification, have at least four years appropriate experience and have satisfactorily completed an approved training course. Such a
course is the five day ‘Competent Planning Supervisor’ course which includes an examination. This entrance requirement is considered to be more rigorous than that of the APS.

IPS do not yet have any specific plans in respect of the new role of ‘Co-ordinator’.

**Major Contractors’ Group (MCG)**
The MCG has played a leading role since the 2001 Turning Concern into Action summit in promoting improved safety on sites. Their ‘health and safety charter’ (Version 3 March 04) states that member companies will commit to a fully qualified workforce. In this respect they state that ‘all management and supervisory staff will have a demonstrable competence in both appropriate management or supervisory skills and health and safety matters’ and that tradesmen and operatives employed on MCG sites will have a ‘demonstrable skill level and healthy and safety training’.
The charter confirms that these requirements will be confirmed by independent audit and that they apply to all contractors and agency labour working on a MCG site.
MCG’s prime support is behind the CSCS scheme but they publish a list of other schemes they are prepared to recognise, at least in the short term.

This move by MCG is significant as although they only have 23 members, they implement some 30% of the construction workload.

Although a significant proportion of the work of MCG member’s is under ECI, PFI or similar vehicles which reduce the frequency of assessment, it remains an issue nonetheless.

As regards their own members having to demonstrate competence a number of issues arose viz:

- How does one get the client to stick to a standard approach
- Essential that there is differentiation between those companies that make the effort, and those that do not.
- Schemes need to be seen to be working and audited
- Must be a driver to incentivise companies otherwise any scheme is likely to fail.
- Some companies may not be comfortable in having scheme imposed

**National Federation of Builders (NFB)**
The NFB has approximately 2000 members, covering a wide range of turnovers. (£250k-£75m). Its intention is for all members to be appropriately trained by 2010. It considers the automobile accreditation standard (QS900-see following paragraph) to be an appropriate model for the construction industry. This requires all members of the supply chain to be competent and registered.
NFB run the CAPS scheme (Appendix 7) which utilises third party audit. This scheme has been endorsed by CHAS and NHS Estates. NFB considers that it is more important to concentrate on the training provisions of an organisation than the competence of individuals, as, in their view if the former is strong, the latter will take care of itself. NHB believe that health and safety issues should be considered as an integral part of overall assessment, and that as the commercial driver is the strongest force, that company culture is the key test. NFB do not believe that self certification would be effective.

TS16949 certification will eventually replace existing international automotive standard QS900 and is considered to be a significant step forward from ISO 9001, to which most UK companies operate.
National Specialist Contractors Council (NSCC)
The NSCC represents 29 trade organisations covering a wide range of construction specialisms. In respect of ‘competency’ it is committed to a fully qualified workforce, and is ‘encouraging’ its member organisations to ‘assess the competence of their workforce and support the use of the CSCS and affiliated schemes.’ NSCC is currently undertaking a survey to determine the current situation. The actions being taken with regard to competency are part of a wider drive and support for an improved industry through better payment practices and integrated working.

The NSCC has expressed support for a unified approach to qualifying questionnaires, such as the ‘core criteria’, subject to other primary schemes (CHAS, ConstructionLine) following suit.

Professional Institutions
All institutions include ‘health and safety’ within their qualification requirements for membership within the education base and the initial professional development phase. It should be the case therefore that corporate members are ‘competent’ as individuals in accordance with Table 14. However:

- Apart from IOSH, the ‘design’ institutions do not currently formally monitor the maintenance of competency, post-qualification. RIBA has plans to monitor members’ CPD records which will have to include an element of ‘health and safety’ (anticipated 2006) and ICE and IStructE are now actively considering this step.

In addition to the above:

- Research into undergraduate education in this field [HSE 2004] concluded that although the accreditation bodies had measures in place in respect of health and safety issues, what was now needed was the delivery of these requirements.
- Research work by HSE has shown that designers are lacking in ability and knowledge. Although the research does not record whether these designers are members of institutions it seems a reasonable assumption to make.
- Limited research by the ICE has confirmed the concerns noted above.

Ensuring that aspiring members have the requisite level of ability and knowledge relies on the adequacy of the validation process through which members have to pass in order to qualify. This in turn relies on the competence of the assessors, and the time allocated to this subject amongst many others.

The institutions have their own pathways towards Technician, Incorporated or Chartered status under the auspices of the Engineering Council (EC UK) There are limited alternatives utilising S/NVQs. For example:

- NVQ Level 3 facilitates acquisition of technician grade within an engineering institution
- NVQ Level 4 is not currently available for civil and structural engineering design (this would, if supplemented by a final review or exam, facilitate acquisition of incorporated grade). Other subjects have exhibited a very low take-up.
- NVQ Level 5 none available

One of the difficulties faced by those wishing to analyse the nature of any designer related issue is that there does not appear to be any reliable source of statistical data on the number of

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104 but specifically ICE, IStructE, CIBSE, RIBA
105 commencing 2005
106 www.hse.gov.uk/construction/designers/intervention.htm
designers who do not belong to an institution. One can conclude that most architects are registered in view of the protected title.

The UK Inter Professional Group (UKIPG) stated in 2003 that institutions should do more to regulate the competence of their members, and in particular on going competence through validation at regular intervals. The reservoirs panel of the ICE was quoted as an example of good practice which is transparent and set out to ensure on-going competence. Advice received by the Author from ICE and IStructE suggests that action is in hand. It is hoped that this will encourage others to follow.

Specialist Engineering Contractors (SEC) Group
The SEC represents six member bodies in the specialist contractor field, representing around 30% by value of all work undertaken in this sector. Their main aims are to improve competence, health and safety standards and payment issues. All of the six bodies have their own pre-qualification schemes.

It is reported that SEC members have 60% less accidents than the engineering industry average. SEC is working with NFB to create a link with CAPS.

SEC confirmed their support for CSCS, but indicated that their members had invested heavily to obtain affiliation. There was a concern that CSCS was not adequately policed to ensure that all those on site had a card, and that these had been obtained appropriately.

SEC emphasised the need for members to see benefit from joining accreditation schemes. It was felt that improvements would be hindered if membership was associated with cost and imposition of further burden on what were usually small businesses. Those who invest in scheme membership must be given a better chance of being asked to pre-qualify than those organisations that do not go to this trouble.

SEC believed that if ‘competency and resource’ was to be an effective element of CDM it had to be defined and enforced throughout the supply chain; the latter was not possible without the former.
APPENDIX 9

Health and Safety Core Syllabus
(from Passport Schemes INDG 381)

- Introduction to Passports and their purposes
- Organising for safety
  - Overview of health and safety law
  - Responsibilities and lines of communication of employers, contractors and individuals
  - Overview of risk assessment
  - The role of safety representatives and health and safety inspectors
- The workplace
  - Safe access and exits
  - Safety signs
  - Temperature, lighting, housekeeping and welfare facilities
  - Slips, trips and falls
  - Using display screen equipment and computers
  - Reporting failures and defects
  - Working at heights and falls from heights
- Plant and Machinery
  - Machinery
  - Electricity
  - Noise
  - Workplace transport
- Health
  - Personal protective equipment
  - Controlling harmful substances
  - Manual handling
  - Musculoskeletal problems
  - Health surveillance or monitoring (if appropriate)
  - Stress
- Procedures
  - Safe systems of work, including permits to work systems
  - Emergency procedures
  - Fire safety
  - First aid
  - Reporting accidents and incidents

The syllabus then continues to consider Environmental issues
APPENDIX 10

CORE CRITERIA FOR DEMONSTRATION OF COMPETENCY: CONTRACTORS, CO-ORDINATORS AND DESIGNERS

NOTE:
If you employ <5 persons you do not have to write down your policy, organisation or arrangements. You need to bear in mind however that the auditor’s/engager’s task will be made more efficient if your procedures are clear and accessible.
These requirements are not intended to imply that a complex set of documents is required. On the contrary, they should reflect the size of organisation and exposure to risk.
You need to satisfy this Core Criteria set. Remember that ‘Contractor’, ‘Designer’ and ‘Co-ordinator’ relate to your function, not to the type of organisation.

<table>
<thead>
<tr>
<th>Item 1</th>
<th>Commentary 2</th>
<th>Evidence 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STAGE 1 assessment</td>
<td>See Section 4.16.1</td>
</tr>
<tr>
<td>1</td>
<td>Health and Safety Policy and Organisation for Health and Safety</td>
<td>You are expected to have and implement an appropriate policy, regularly reviewed, and signed off by the Managing Director or equivalent. The organisation must be relevant to the nature and scale of your work and set out the responsibilities for health and safety management at all levels within the organisation</td>
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<td>A signed, current copy (indicating when it was last reviewed and by whose authority it is published); Defined HS responsibilities for all levels in the company (e.g. MD, HS Advisor, Managers, Supervisors, Co-ordinators, Designers, Operatives etc as appropriate)</td>
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<td></td>
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<td>A copy clearly displayed at the company’s office and at all sites.</td>
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</tbody>
</table>

107 The Author acknowledges the assistance provided by similar work undertaken by the Construction Confederation, the Specialist Engineering Contractors’ Group, Major Contractors’ Group, and Construction Industry Council on which this appendix draws.
<table>
<thead>
<tr>
<th><strong>Item</strong></th>
<th><strong>Commentary</strong></th>
<th><strong>Evidence</strong></th>
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<td><strong>1</strong></td>
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<tr>
<td><strong>2</strong></td>
<td>Arrangements</td>
<td>These must be relevant to the nature and scale of your work and set out the arrangements for health and safety management at all levels within the organisation.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Competent Advice – Corporate and Construction related</td>
<td>Your organisation, and your employees, must have ready access to competent health and safety advice, preferably from within your own organisation. The advisor must be able to provide general health and safety advice, and also (from the same source or elsewhere) advice relating to construction issues.</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Training and Information</td>
<td>You must have in place, and implement, training arrangements to ensure your employees have the skills and understanding necessary to discharge their duties as Contractors, Designers or Co-ordinators. This applies throughout the organisation- from Board or equivalent, to trainees.</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>Individual Qualifications and Experience</td>
<td>Employees are expected to have the appropriate qualifications and experience for the assigned tasks, unless under controlled and competent supervision. The ‘%’ given, for both Contractors and Designers, are considered to be current minima. Full achievement is expected by 2010. All ‘Co-ordinators’ are expected to be competent.</td>
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<td>Commentary 2</td>
<td>Evidence 3</td>
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<td>should hold the CITB ‘Site Managers Safety Training’ certificate or equivalent. Contracting site staff should have a minimum 30% holders of CSCS cards or equivalent ie Blue category. If you do not match these requirements, you should have a timed action plan for ensuring compliance.</td>
</tr>
<tr>
<td>B</td>
<td>Design organisations should have 50% professional Institution membership and 50% CSCS visitor card holders or equivalent, and for those employing &gt;5 at least one member holding a specific qualification eg ICE H&amp;S Register, NEBOSH Construction Certificate, APS Design Register. Larger organisations should have proportionately more. If you do not match these requirements, you should have a timed action plan for ensuring compliance.</td>
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<tr>
<td>C</td>
<td>Organisations putting forward Co-ordinators should have a structured management structure and culture which demonstrates commitment to this role. If you do not match these requirements, you should have a timed action plan for ensuring compliance.</td>
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<tr>
<td>6</td>
<td>Monitoring, Audit and Review</td>
<td>You must have a system for monitoring your procedures, for auditing them at periodic intervals, and for reviewing them on an ongoing basis. Could be through site log-books, statutory inspections, discussions, formal audit.</td>
</tr>
<tr>
<td>Item 1</td>
<td>Commentary 2</td>
<td>Evidence 3</td>
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<tr>
<td>7</td>
<td>Workforce involvement</td>
<td>You must have, and implement, an established means of consulting with your workforce on health and safety matters.</td>
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<tr>
<td>8</td>
<td>Accident reporting and enforcement action; follow up investigation</td>
<td>You must have records of all RIDDOR reportable events, and any enforcement notices, for at least the last 3 years. You should also have in place a system for reviewing all incidents, and recording the consequential action taken as a result</td>
</tr>
<tr>
<td>Item 1</td>
<td>Commentary 2</td>
<td>Evidence 3</td>
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<tr>
<td>9</td>
<td>Sub-contracting/consulting procedures (if applicable)</td>
<td>You should be able to confirm that you require the same information and standards of your sub-contractors/consultants, as required of you in this pro-forma. You should also be able to confirm that this is required by contract for any subsequent sub-contracting/consulting. Note that it is not possible to sub-contract the statutory functions of a Co-ordinator. It is possible to employ a sub-contractor/consultant to undertake the functions on a contractual basis.</td>
</tr>
<tr>
<td>10</td>
<td>Design hazard management (designers)</td>
<td>You must have, and implement, a system for discharging your duties under regulation 14 of CDM2006</td>
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<td></td>
<td></td>
<td>The identification of health issues is expected to feature prominently in this system.</td>
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<tr>
<td>11</td>
<td>Risk assessment leading to a safe method of work (contractors)</td>
<td>Examples of practical, project specific safe methods of work.</td>
</tr>
<tr>
<td>Item</td>
<td>Commentary</td>
<td>Evidence</td>
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<td>workforce informed of the findings) Evidence is required of how the company will identify significant HS risks and how they will be controlled. If you employ &lt;5 persons you should be able to describe how you achieve the above, if you have chosen not to write it down.</td>
</tr>
<tr>
<td>2</td>
<td>The identification of health issues is expected to feature prominently in this system. This will depend upon the nature of the work, but must reflect the importance of this risk area.</td>
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<tr>
<td>12</td>
<td>Managing interfaces between yourself (contractor) and other contractors. You should be able to illustrate how interfaces are managed. This relates to the physical management, and also the procedural management, put in place before activity commences. Evidence would include risk assessments, procedural statements, meeting notes and the like, by way of example. Designers should also be able to identify by example that where critical design interfaces occur, actions are taken to ensure risks are eliminated or controlled etc.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Co-ordinator Functions You must be able to demonstrate how you go about reviewing designs and interfacing with designers The evidence should be in the form of actual example rather than by generic procedures.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Health and Welfare (Contractors and Designers) You must be able to demonstrate that you take positive action* to ensure that appropriate health and welfare arrangements are in place before employees start work on site Give examples of welfare provision, or their facilitation, and their dates of provision in relation to project start, from recent projects.</td>
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</table>

* by design or procurement action, or by Contractor management actions

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<table>
<thead>
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<th>Item</th>
<th>Commentary</th>
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<tbody>
<tr>
<td>1</td>
<td>Work experience</td>
</tr>
<tr>
<td>2</td>
<td>STAGE 2 assessment</td>
</tr>
<tr>
<td>1</td>
<td>Work experience: You should have in schedule format, the key details of relevant experience in the field of work for which you are applying.</td>
</tr>
<tr>
<td>2</td>
<td>STAGE 2 assessment: See Section 4.16.1 (not part of ‘Core Criteria.’)</td>
</tr>
<tr>
<td>3</td>
<td>Evidence</td>
</tr>
<tr>
<td>1</td>
<td>A simple record of recent projects/contracts should be kept, with the phone numbers/addresses of contacts who can verify that the design followed the requirements of Reg 13 in a compliant and meaningful manner, and/or work was undertaken safely on site, and/or the role of planning supervisor/Co-ordinator was executed satisfactorily. This should be such that your ability to deal with the key health and accident hazards in the current application, are clearly illustrated.</td>
</tr>
</tbody>
</table>
APPENDIX 11

TYPICAL ACTIVITIES TO DEMONSTRATE ADEQUACY OF TIME ALLOCATION OF CO-ORDINATOR (See Section 9.2.3)

A schedule is to be handed to the Client, and copied to others, so that they may be aware of the activities of the Co-ordinator. Its purpose is not to identify the precise time allocated (which the Client is unlikely to be able to judge as appropriate or otherwise), but instead to illustrate the generic activities included on the specific project. It will also form a basis for explaining to a lay Client the role of the Co-ordinator.

The example illustrated below lists typical activities that might be included. The aim should be to make it as useful and illustrative as possible. The detail and quantum will clearly vary with the nature of the project, the means of procurement, and the key residual risks.

This schedule may need amendment if the project changes in any significant manner (Regulation 7).

Table A11.1 typical activities of Co-ordinators

<table>
<thead>
<tr>
<th>Function (paraphrased) from Table 19</th>
<th>Typical Activity</th>
<th>Expected Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)-assist and advise the Client</td>
<td>Visit site (always)</td>
<td>Holistic understanding of significant constraints over the site-wide area; conflicts with adjacent activities or uses; issues for others to consider. Briefing note, action plan and timetable. Identification of early actions.</td>
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<tr>
<td></td>
<td>Meet with Client to discuss project and issues likely to arise (including a briefing on key aspects eg ill health)</td>
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<td></td>
<td>Assist Client in constructing appointment contracts such that non-assigned CDM duties are clearly allocated</td>
<td>Associated clauses for insertion into appointment contracts.</td>
</tr>
<tr>
<td>Function</td>
<td>Typical Activity</td>
<td>Expected Outputs</td>
</tr>
<tr>
<td>---------------------------------------</td>
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<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(paraphrased) from Table 19</td>
<td></td>
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<tr>
<td></td>
<td>Assist Client in appointing other Designers, and Contractors through assessments</td>
<td>Identification of appropriate appointment procedural options in relation to chosen contractual format. Appointment process which identifies competent organisations. Assessed competencies (Stage 1 and 2) for all those appointed by the Client. Identification of any project specific competencies.</td>
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<td>and interview. (Stage 1 and 2 assessments)</td>
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<tr>
<td>(b)-identify and extract the</td>
<td>Assist Client in the development of the management plan and review from time to</td>
<td>Compliant management plan which takes account of matters described in Regulation 7. Amendments which reflect significant changes. Contemporary documentation and Client actions reflecting actual progress of project.</td>
</tr>
<tr>
<td>information specified in Regulation 10</td>
<td>time. Review project at periodic intervals. Provide ongoing advice as required</td>
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<tr>
<td></td>
<td>% of total time allocated--- Identify and review existing data</td>
<td>Existing useful data collated and obtained. Identification of agreed additional information required to produce a compliant and safe design. Identified period of time of notification.</td>
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<td></td>
<td>Recommend additional data; discuss with Designers.</td>
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<td></td>
<td>Discuss the notification period to be placed on the F10</td>
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<tr>
<td>(c)-advise on the suitability and</td>
<td></td>
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<tr>
<td>compatibility of designs</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>% of total time allocated--- Attend selected design team meetings; facilitate</td>
<td>Improved design having due regard to issues concerning the health and safety of others. Documented actions.</td>
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<tr>
<td></td>
<td>‘risk related’ discussions</td>
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<tr>
<td></td>
<td>Attend project team meetings</td>
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<tr>
<td></td>
<td>Review individual Designers’ procedures and selected outputs for compliance with</td>
<td></td>
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<td></td>
<td>Regulation 14.</td>
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<td>Provide an overview of the design and information provision in respect of hazard</td>
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<td>elimination, mitigation and management</td>
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<tr>
<td>Function (paraphrased) from Table 19</td>
<td>Typical Activity</td>
<td>Expected Outputs</td>
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<tr>
<td>(d)-co-ordinate design work, planning and other preparation</td>
<td>Advise on need for contractor input during the design stage in respect of constructability issues % of total time allocated--- Attend selected design team and project meetings (as above) Meet with Client Meet with appointed Principal Contractor and key sub-Contractors. Contribute to value engineering (and ensure this process pays due regard to health and safety risks) % of total time allocated---</td>
<td>Documented rationale and action plan. Documented actions and outputs. Client informed of on going issues Communication with, and integration of Contractors into the Team in respect of health and safety issues. Achievement of project benefits whilst ensuring project integrity.</td>
</tr>
<tr>
<td>(e)-liaise with the Principal Contractor in respect to any design or change…</td>
<td>Meet with Principal Contractor at commencement to understand programme of design and parties involved Attend selected Contractor design meetings or similar Assess implications of any change to project and discuss with Client. % of total time allocated---</td>
<td>Integrated contractor design having due regard to pre-construction discussions and residual risks.</td>
</tr>
<tr>
<td>(f)-provide information relating to Regulation 10 (g)-prepare, review etc H&amp;S File</td>
<td>Issue data from time to time % of total time allocated--- Agree format and contents</td>
<td>Appropriately informed contractor appointed designers. Clear directions for all contributing parties.</td>
</tr>
<tr>
<td>(h)-pass H&amp;S File to Client</td>
<td>Attend selected site progress meetings to establish procedure and monitor progress of H&amp;S file data. Ensure data is received from Designers, Contractors timeously. % of total time allocated---</td>
<td>Maintenance of progress and identification of problems</td>
</tr>
</tbody>
</table>

A useful, well documented reference file.
REFERENCES

<table>
<thead>
<tr>
<th>Reference</th>
<th>Author(s)</th>
<th>Title</th>
<th>Year</th>
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<tbody>
<tr>
<td>1</td>
<td>ARNOLD E</td>
<td>Promoting Mutual recognition between Pre Qualification Schemes</td>
<td>Draft Cabinet Office- Regulatory Impact Unit paper 2003</td>
</tr>
<tr>
<td>2</td>
<td>CARPENTER J</td>
<td>Egan: A health and safety perspective, Health and Safety, March 1999 p15-16</td>
<td></td>
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<tr>
<td>3</td>
<td>CARPENTER J</td>
<td>The Business case for Health and Safety APS Practice Note 5/03 Association for Project Safety, Edinburgh</td>
<td></td>
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<td>4</td>
<td>CARPENTER J</td>
<td>Competency in Structural Engineering Design The Structural Engineer Vol 82 No 15 3 August 2004 p16-18</td>
<td></td>
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<tr>
<td>5</td>
<td>CONSTRUCTION INDUSTRY COUNCIL (CIC)</td>
<td>Survey of UK Construction Professional Services</td>
<td></td>
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<td>6</td>
<td>CITB-ConstructionSkills</td>
<td>Construction Skills Foresight Report 2003 Construction Industry Training Board</td>
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<td>Strategic Overview 2004-2008 Construction Industry Training Board</td>
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<td>8</td>
<td>DEPARTMENT OF WORK AND PENSIONS (DWP)</td>
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<td>9</td>
<td>HAMPTON P</td>
<td>Reducing administrative burdens: effective inspection and enforcement HM Treasury 2004</td>
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<td>10</td>
<td>HEALTH AND SAFETY EXECUTIVE</td>
<td>Successful health and safety management HSE Books HSG 65</td>
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<td>Managing Health and Safety in Construction Approved Code of Practice HSE Books HSG224</td>
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<td>HEALTH AND SAFETY EXECUTIVE</td>
<td>Revitalising Health and Safety in Construction A Discussion Document</td>
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<td>13</td>
<td>HEALTH AND SAFETY EXECUTIVE</td>
<td>Inspectors detect improvements in designer CDM performance Press release E073:04 June 2004</td>
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<td>HEALTH AND SAFETY EXECUTIVE</td>
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<td>15</td>
<td>HEALTH AND SAFETY COMMISSION</td>
<td>A strategy for workplace health and safety in Great Britain to 2010 and beyond</td>
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<td>16</td>
<td>HEALTH AND SAFETY COMMISSION</td>
<td>Regulation and Recognition-Towards good performance in health and safety Consultation Document</td>
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<td>17</td>
<td>THE INSTITUTE OF CHARTERED ACCOUNTANTS (ICA)</td>
<td>Implementing Turnbull A Boardroom Briefing: September 1999</td>
<td></td>
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<td>18</td>
<td>THE INSTITUTION OF OCCUPATIONAL SAFETY AND HEALTH</td>
<td>Global best practices</td>
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