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Client-Contractor Requirements for Effective Health and Safety Management

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Introduction

Construction safety is a global concern – wherever there are construction activities there are safety concerns. The ILO (2005) estimates that there are 60,000 fatal accidents worldwide each year, or put another way, this equates to a fatal accident occurs every ten minutes and 17 per cent of all fatal accidents. Arguably, the problems are rarely unique to one country or region and so this presents an opportunity to address issues on a global scale by sharing practices from country to country (Hinze, 2008). National construction expenditure is closely related to national income with Europe, USA and Japan responsible for over 70 per cent of global output (ILO, 2009). The ILO estimated (1999) that between 9 and 20 per cent of national populations are involved in the construction sector.

In Great Britain, in the last 25 years, over 2,800 people have died from the injuries they received as result of construction work. Workers in the construction industry account for more than 30% of the fatal accidents. It's Britain's biggest industry with 250,000 firms employing 2.2 million people in a wide range of roles. The industry covers construction materials and products; suppliers and producers; building services manufacturers, providers and installers; contractors, sub-contractors, professionals, advisors and construction clients and also organisations that are relevant to the design, build, operation and refurbishment of buildings.

Given the economic significance of the industry in terms of its output and impacts, considerable efforts have been afforded to identifying how best to manage the health and safety issues. In this paper we will examine and illustrate the key requirements for developing effective health and safety management in client – contractor relationships in the context of the construction industry:

- Contractor competence
- Client-contractor communication

- Partnership working

What does good practice look like?

IOSH and ASSE have long recognised the key principles that contractors and clients should adopt before, during and post contract. IOSH (2003) publication '*Global Best Practices*' sets out a blueprint for good practice:

Clients adopting good practice

- make use of health and safety responses to pre-tender questionnaires throughout the process
- create a culture – internally and with the contractor - that fosters co-operation, co-ordination, communication and competence, avoids confrontation and focussed on a precise interpretation of the contract
- consistently manage the relationship with the contractor and expect the contract to do this with any sub-contractors
- have clear contract health and safety management processes and accountabilities, including regular, active monitoring and enforcement of performance standards.

Contractors adopting good practice

- identify hazards and implement risk-based controls for all their activities
- create a culture – internally and with the contractor - that fosters co-operation, co-ordination, communication and competence, avoids confrontation and focussed on a precise interpretation of the contract
- implement current and relevant regional and global health and safety standards and practices
- are good practice clients for their subcontractors.

Good practice contractual arrangement should have three key components:

- A pre-mobilisation stage
- An on-site stage
- A post-contract stage.

The pre-mobilisation stage includes

- monitoring against a contract-specific plan, developed using contractor specialist experience where appropriate
- ensuring workforce competence – maximise use of passport schemes to cover industry-wide training and competence issues
- agreement on suitable key performance indicators, including relevant health and safety measures
- agreement on and communication of co-operative culture, expected health and safety performance standards and any rewards and sanctions to be used
- consideration of client-contractor team-building activities for safety-critical contracts.

Where the contract work is carried out on the client's premises, the on-site stage includes:

- site/contract-specific induction training, clearly linked to any passport scheme used for generic inductions

- ensuring site induction also includes any ‘good neighbour’ issues and procedures
- provision of suitable welfare facilities, ensuring the standard does not indicate that contract personnel are treated as ‘second-class citizens’
- active interface management and regular review, particularly to ensure consistent communication between client and contractor, and joint ability to manage any pressures for improved performance, including refusing to condone or ignore short cuts
- regular, pre-planned, joint health and safety performance monitoring and feedback, including provision of adequate time and resources for workplace contacts and worker representatives, where appointed
- processes to communicate and manage change, including revision of relevant risk assessments by competent people. Agreement that changes must not proceed in the absence of such assessments
- implementation of systems to recognise and reward both good practice and new best practice amongst individuals and groups.

At the post-contract stage

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- implement a holistic review, covering client, contractor and sub-contractor performance and the root causes of their performance levels
- link feedback and improvement opportunities to repeat business opportunities
- ensure client and contractor feedback is linked to agreed pre-contract performance standards and other expectations.

Implementing good practice – current challenges

Key issues for clients are in recognising that their accountability includes the need to provide health and safety leadership, often where they are less familiar with the details of health and safety good practice than the specialist contractors they engage. Additionally, they need to adopt a mindset of ‘value for money’, requiring a more complex tender assessment and a greater challenge as elements of value are not always easy to assess; choosing the cheapest tender may not allow them to deliver all the requirements of their overarching client role. Success in theses areas can lead to several benefits for clients, such as improved health and safety results and other business rewards, which can include skills transfer from contractor to client, reduced insurance costs, positive PR with internal and external stakeholders, and enhancement of reputation.

On the other side of the relationship, there’s a need for contractors to fulfil their role in the partnership: in practical terms they will need to carry out comprehensive risk assessments and link those to site specific method statements. Optimum working comes from the application of sensible safety principles and practical and efficient solutions. This can only be achieved by addressing the need for competence in their workforce and adopting the formal systems necessary to demonstrate and verify this; systems which can require significant investment and management resource. However, if these issues are addressed early on as part of a standardised process, the potential benefits can include increased and retained skills and competence, market edge and reduction of losses and insurance costs.

Overall, both parties will need to embrace the fact that investment in best practice, in real terms, may appear as a short term cost with only long term benefits. Suitable pre-qualification schemes

require significant effort, especially when they have to comply with free competition rules. Joint development of health and safety incentives and an understanding that accidents can be learning opportunities, despite the difficulties in investigating root causes fully and sharing and learning openly, can lead to benefits for all parties in the long term.

These issues are of course not in a vacuum but set against a backdrop of globalisation. Globalisation – domestic deregulations and liberalisation of markets – coupled with technological advances have stimulated / accelerated several changes in: workforce mobility; employment opportunities; working patterns; economic networks and communications. In the context of construction, this has resulted in a need to address cross-cultural management (Torrance, 2004).

Competence, communication and co-operative arrangements are but some of the essentials for achieving good practice. We now focus on these interrelated issues.

Competence

Although competence assessment is regarded as essential, a lack of clear definition of competence has led to inconsistency and confusion in the industry. Questionnaires are thought to be less reliable than site visits and face to face interviews for assessing competence. Also, the perception of competence varies across trades within the industry and between duty holders (BOMEL, 2007). The industry has a history of a skills shortage that has constrained its productive capacity (Chan and Dainty, 2007). In the current economic downturn, the industry is being encouraged to maintain staff skills in preparation for recovery from 2011 (ConstructionSkills, 2009)

In terms of health and safety competence, Dingsdag et al. (2008) reported that construction workers perceived OSH education and training as critical to the conduct of the OSH advisers, supervisors, union representatives and workers and further saw these four stakeholders as the most influential in determining site safety.

Despite the importance of health and safety competence and the recognition of this at grass roots level – research carried out on behalf of ConstructionSkills showed that under half of the construction organisations surveyed had provided health and safety training for their direct and contracted employees in the last two years (IFF, 2007).

A further challenge is the limited coverage of appropriate health and safety management material in several vocational training and education programmes, such as construction (Carpenter et al., 2001) and engineering (Lee, 1999). This issue is not unique to the UK (Dingsdag et al., 2008). IOSH is currently working with engineering professional bodies to help make sure adequate health and safety knowledge is provided to engineering undergraduates. Some recent progress has been made at Liverpool University, UK where engineering graduates are learning about health and safety risk in a practical way, but there is much more work to be done to ensure that health and safety is a core discipline in these programmes.

More recently, in an IOSH sponsored study, Cameron et al. (2007), focusing on the construction sector, tested the hypothesis that good health and safety performance is dependent, to a measurable extent, on the provision and appropriate application of competent health and safety management. They found a small (0.25) but significant relationship between investment in health and safety professionals (as a percentage of turnover) and health and safety performance (in

terms of accident frequency rate). Increasing investment in health and safety professionals was linked to a cut in accident rates, or better performance. However, this linear association tailed off as investment approached 0.1-0.2% of turnover. The smallness of the correlation is probably not surprising given the many other confounding influences on accident rates, such as safety culture, line manager training and worker involvement. This study also examined the relationship between aspects of the health and safety professional's role and the company's health and safety performance and found the following significant differences:

- Companies with in-house health and safety professionals have an accident rate nearly 60 per cent lower than those that only use consultants.
- Using consultants is more common in smaller companies (with a turnover of less than £25 million). In this category, companies that employ a mixture of health and safety staff and a consultant tend to perform best.
- Companies with health and safety professionals who train staff in health and safety have accident rates that are one third lower than those that don't.
- Companies with health and safety personnel who vet or assess sub-contractors have close to a 60 per cent lower accident rate than those that don't.
- Companies with line managers with higher levels of health and safety training and qualification – vocational qualification level 3 or above – have the lowest accident rate. Companies with line managers qualified at vocational qualification level 2 have a higher rate of accidents. Those with the lowest level – up to two days' training – have the highest rate. These companies have an accident rate more than *eight times higher* than the companies with the most highly trained or qualified line managers.

Additionally, IOSH has produced general guidance on the training and competence requirements for these roles, applicable across all sectors of industry (IOSH, 2008).

Communication

Noted as always being a challenge not just in terms of health and safety, it is essential to risk control and to the development of a positive safety culture (e.g. Flin et al., 2000). Dingsdag et al. (2008) in his study of construction workers reported that good interpersonal communication skills were considered second most important characteristic of those in safety critical positions.

An influx of Polish, Lithuanian and other A8 accession countries has placed challenges on health and safety management in the British construction industry. The industry response has been through the translation of health and safety materials, use of interpreters and visual methods. For example, the Construction Industry Training Board (CITB) and the Construction Federation in the UK produced guidance on clearer methods of communication and recommendations for safety pictures and signs. However, looking at the experiences of other countries where there is extensive us of foreign labour, simply paying attention to linguistic differences is not enough. Differing labour cultures and traditions impact upon work habits, communications relationships, which in turn can impact on concentration (Kartam et al., 2000; Jaselskis et al., 2008). Overall, there is little scientific evidence to support the effectiveness of these approaches currently in use in the UK (Bust et al., 2008).

IOSH is commissioning a study at Glasgow Caledonian University to The impact of pictorial OSH training on migrant worker behaviour and competence. Very little research exists on the

benefits and limitations of this type of communication aid. In particular, it is essential that the impact of this on health and safety knowledge and performance is investigated, to establish its effectiveness and identify remaining barriers to health and safety knowledge transfer. Findings will be published in 2010/11.

The implications of this influx are that good practice approaches to developing communication between client and contractor, for example, by providing contractors with a contractor's information pack covering policies, protocols and guidance on dealing with hazards before the contractor comes on to the client site to share good practice, do not have the desired impact.

Although the focus has been on the client and contractor issues, decisions made before the contractor is appointed and work starts can have far reaching impact on the health and safety. The health and safety of construction workers can be significantly improved through design practices upstream of the construction phase. The historic demarcation of the various parties in a construction project and the separation of their functions has been attributed to many failures. In a study of UK accidents in the sector, Gibb et al. (2004) examined the possible contribution of design. In 47 of the 100 accidents reviewed changes in design would have reduced the accident likelihood. A study in the USA (Behm, 2005) of construction fatalities found that design was linked to 42% of the cases. Recently, the model used in this study was validated (Gambatese et al., 2008).

The criticality of design to construction safety is recognised in the UK's Construction (Design and Management) Regulations (2007), which replaces the 1994 regulations. Although the impact of these regulations cannot be assessed yet, they have ensured that clients recognise that they have an important role to place making OSH a priority; highlighted the roles and responsibilities of key players in the construction process and ensured that OSH is planned in.

By way of an illustration of communication at the design stage, one of the authors recalls her experience as a Planning Supervisor:

'The design team tried to persuade a client that the best way to build a new ward was to build it off site, crane it in and do second fix, utility connection works and decoration on site. The location of the new ward was in the space located in the middle of four other buildings, one of which was an intensive care/high dependency unit. Patients could not be moved out of this unit but at same time could not be left below the path of the crane jib in motion. One suggestion was that the patients could be shuffled from one end of the ward to another while the crane was slewing over the building. When the location of the crane was considered, the only option providing the right angle for the slew was on the car park adjacent to the entrance for the accident and emergency wards.

The client had thought the problem the Planning Supervisor was trying to point out was that the crane would be positioned next to the hospital entrance and hold up the ambulances coming in. What in fact the Supervisor was concerned about was that the car park surface, even with a crane mat, would not take the weight of the crane. The ward was never built and the project came to an end. Had the design team persuaded the client it could be built, then a contractor would have been appointed and, keen to win the tender, would have tried to build it and in doing so not been in a position to tell the client there were buildability issues.'

Co-operative arrangements

Partnership working has become widespread in many industrial settings not just construction to the extent that often the boundaries of the enterprise are blurred. Cultural alignment is considered important in partnerships as it generates co-operation between partners while major differences could present obstacles to co-operative ways of working. Thompson and Sanders (1998) assessed over 1,000 partnership arrangements in the engineering and construction sector and found that the benefits of partnerships greatly increased as the relationship developed. They suggested a partnership continuum that illustrated differing levels of involvement of the partnering organisations, from competition (each group chooses to maximise their own benefits), through to cooperation, collaboration and coalescence (each representing increasing levels of alignment and trust). Establishing commitment and trust is considered key to achieving common and complementary objectives (Bresnen and Marshall, 2000). The documented benefits of partnering are many and varied, tangible and intangible and depend to some extent on the type of evidence used in the evaluation (Nyström, 2007). Importantly, in the context of the construction industry, partnering demonstrates a desire to improve the perception of the industry.

Embedded in the UK construction industry is the 'Working Well Together' initiative, which aims to raise health and safety standards in the industry, particularly small and micro businesses. Spearheaded by the UK Health and Safety Executive, and driven by health and safety volunteers, this initiative has challenged UK construction industry stakeholders to commit to raising health and safety standards, through: "sharing best practice", "recognition of the uncompromising requirement for competency" and "the belief that everyone has the right to go home safely at the end of the working day". Now in its tenth year, this initiative thrives on a relationship of partnership and trust and sharing of a common purpose. Communication is the key to knitting the partnership together and delivering above and beyond that promised or expected.

'Working Well Together' aims to provide a nationwide network of groups where members can support and advise each other and share good practice throughout the industry, encourage new members to join in and put on events where at least half the invitees are from businesses with less than 15 employees.

Information on current standards and the sharing of best practice is readily available in these forums which take workers out of paid work only for half a day. These free events emphasise the need for worker involvement and demonstrate correct ways of working – for example at height and when manual handling – causes of fatality and long term absence from work, respectively.

Out of the networking opportunity that comes with these forums, comes the chance to hammer home the message that workers can be heard and can make a difference. Whilst this will still only work if clients embrace the fact that a contract involves equal partners, the forum encourages contractors to take a more active (dominant) role in the relationship.

Where inductions/talks do take place revolving around the client's requirements and local arrangements, contractors have an opportunity to involve that client in their own arrangements for setting up a safe worksite; particularly where that worksite will be within the client's working environment. Ideally, the contractor can get all the information he needs to be able to do the job safely and communication channels are opened. Tomorrow, when the contractor goes to his next job, he will know what to expect and what to ask for. Some contractors will put this requirement in future tenders or risk assessments and gradually standards will rise.

Summary

This paper has revisited good practice in client-contractor health and safety management and outlined the key issues to be addressed in implementing good practice. Central to implementation are competence, communication and co-operative arrangements. For each of these interrelated elements, the current situation and some challenges have been highlighted drawing on a range of evidence and experience.

- Competence generally, and in health and safety specifically, impacts performance but its development continues to be under resourced
- Communication impacts culture and both are challenged by changes in the demographics of the workforce, which in turn has implications for relationships
- Cooperative arrangements offer both tangible and intangible benefits and can in turn aid competence development and communication.

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