

# Set the record straight

With ever-increasing commercial demands, resource challenges, and the run up to the Olympic Games development, **Ian Hutchings** says now is a good time to take stock and look at new and practical ways to improve the construction industry's safety record.

THE USE OF BEHAVIOURAL SAFETY METHODOLOGIES FIRST STARTED IN well-controlled site environments, such as chemical plants, factories, and oil and gas facilities. As an industry with an itinerant supply chain, many interfaces, and competing values, construction offers one of the greatest challenges in applying these techniques. In recent years, some approaches have been adopted in UK construction by top-tier contractors and their clients – with differing degrees of success. There are several different techniques on the market that aim to improve safety performance by focusing on the safe behaviours of individuals and teams. These primarily fall into three groups, including:

- top-down management-led programmes;
- bottom-up 'key safe behaviour' employee/site-led programmes;
- hybrids of the two, with cascading, top-down and leadership workshops supported by behavioural observation.

It would be too time-consuming to consider the different techniques in finite detail. In essence, they all seek to achieve the same ends: a visible reduction in unsafe behaviour, which, in turn, leads to a decrease in people getting hurt. They contrast with traditional safety management, where the aim has always been to reduce unsafe conditions, such as missing edge protection, incorrect lifting tackle, and open excavations. The principles of behavioural safety would suggest that an unsafe condition has normally been created by an unsafe behaviour, and then reinforced by site management and employee acceptance, condoning the situation.

The UK construction industry has now started to adopt some of these techniques, and is driving them down through the supply chain. The most recent and well-known example is the Heathrow Terminal 5 project (T5).<sup>1</sup> To engage the supply chain and influence safe working practices, on-site leadership workshops were delivered to key personnel in the workforce. Communication groups were also established and specific safe behaviours were identified and reinforced on using observation techniques.

## Traditional and behavioural management

One issue that has arisen from these techniques has been the separation in peoples' minds of 'behavioural safety' and 'traditional safety management'. How many times have you heard people say 'we have the systems in place, now we want to focus on behaviour'? Surely safety management is all about behaviour? It is this mindset that can lead to 'safety initiative syndrome'. In reality, what may be needed is a shift in practical ways of managing safety, which are then adopted forever, not just for the coming year or two. Maybe this is why there is a view among some practitioners and company directors that behavioural safety doesn't work, or it is not sustainable. This is almost a self-fulfilling prophecy.



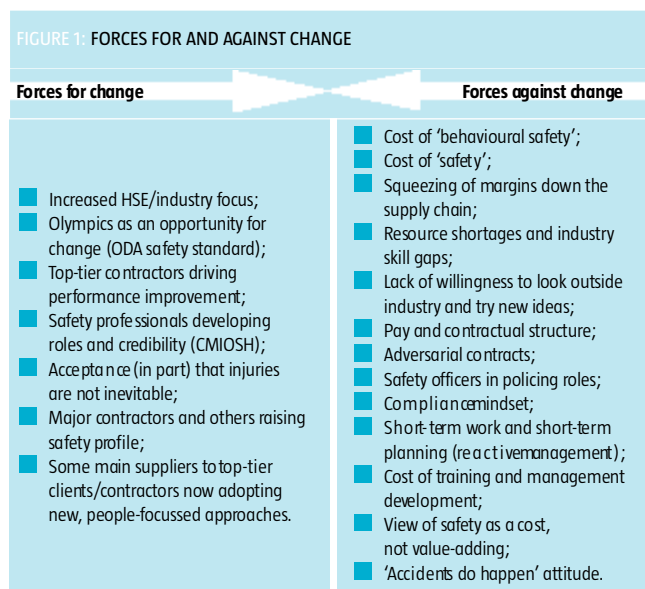
Research and experience has consistently shown that companies excelling in managing safety do not normally use the term 'behavioural safety' or 'safety culture'. This is because it separates safety from the core values and function of the business. How many companies do you know that talk about their 'financial culture', 'profit culture' or 'construction culture'?

This speculation and hypothesis is all well and good, but how can we use the best aspects of behavioural safety with the effective parts of traditional risk management to make continual improvement?

To do this, we need to consider two critical factors: competing values, and the basic principles of risk management.

## Competing values

In the force-field analysis below (figure 1) there are some examples of competing views and values in construction. This is just an example, and more forces could be included for and against change.



Some organisations say 'safety is our number-one priority'. An interesting observation is that the companies with the world's best safety performance do *not* say this. They say 'safety is equal to production, quality and environmental management'. We would argue that any director would say in truth that the most important aspect of business is making money, but not at the expense of safety or health.

Many leading UK construction companies have been working for some time to change the traditional adversarial commercial arrangements, in partnership with their top suppliers. This is already showing improvements in safety performance as well as business performance. However, going down through the supply chain it is still apparent that this approach and philosophy has not penetrated the industry. While researching for this article, I found several examples that have had an impact on improved safety and commercial performance, including:

- an oil company that split financial gains with suppliers who offered ideas to improve operations and reduce safety risk;
- financial incentives set against leading indicators and the inputs to safe working (such as scored site audits, competency development and management observation tours) rather than a sole measure of accident frequency rate.

Research has shown that there are strong links between economic factors and risk taking.<sup>2</sup> For example, the use of incentive schemes to reward safety performance is a powerful way to promote safe behaviour. However, it is extremely important to ensure that the reward is linked directly with other commercial rewards for quality and progress, and does not focus solely on the number of accidents. Evidence suggests that a sole focus on accident frequency rate creates a fear of reporting and a focus on what has happened, and not on what is being done to lead and influence safe working i.e. a reactive culture.

When using leading indicators there is a temptation to measure quantity rather than quality. For example: How many safety inspections have we done this month? Have we met our target? One other contradiction with basic safety principles is the idea that 'line

management is responsible for safety'. If this is the case, why do so many construction sites have safety officers constantly present to 'police' safety. This could be construed as taking the responsibility and accountability away from site management and supervision.

The industry is in the ideal position to consider its tactics now for influencing the whole supply chain, and to consider how people-based and traditional risk management can be merged to the greatest effect.

Table 1 below shows how different cultures handle safety information.<sup>3</sup> Where do you think the construction industry currently sits in this table? If it is reasonable to suggest that not many construction organisations operate in the 'generative culture' column, though are trying very hard to get there, and many companies down the supply chain operate somewhere between a pathological and bureaucratic culture, what can be done to continually move across to the ideal of the right-hand column?

**TABLE 1: HOW DIFFERENT ORGANISATIONAL CULTURES HANDLE SAFETY INFORMATION**

Pathological culture	Bureaucratic culture	Generative culture
<ul style="list-style-type: none"> <li>don't want to know.</li> <li>messengers (whistle blowers) are shot.</li> <li>responsibility is shirked.</li> <li>failure is punished or concealed.</li> <li>new ideas are actively discouraged.</li> </ul>	<ul style="list-style-type: none"> <li>may not find out.</li> <li>messengers are listened to if they arrive.</li> <li>responsibility is compartmentalised.</li> <li>failures lead to local repairs.</li> <li>new ideas often present problems.</li> </ul>	<ul style="list-style-type: none"> <li>actively seek it.</li> <li>messengers are trained and rewarded.</li> <li>responsibility is shared.</li> <li>failures lead to far-reaching reforms.</li> <li>new ideas are welcomed.</li> </ul>

Actions already taking place to lead change include:

- increased 'safety leadership' training for major contracting company managers;
- shared commercial/safety benefits via increased partnering and supply-chain forums to develop involvement and sharing of ideas;
- less acceptance of poor management and low safety standards by contractors;
- increased regulation;
- the Major Contractors Group Health and Safety Charter;
- HSE construction division intervention strategy; and
- increased focus and awareness of occupational health.

These actions continue to raise the profile of safety and are cascading in a top-down fashion through the top layers of contractors to the majors.

This renewed industry focus and HSE educative approach is starting to see results, but the decrease in fatalities is slow and, based on the statistics alone, looks like it is starting to plateau. This is why it is important to take a step back and consider merging the basic principles of risk management with behavioural safety, rather than seeing them as separate.

## Basic principles

If we go back to basic principles, it is clear that behaviour is part of managing safety. On most construction projects the main focus is on local workplace factors, or site conditions, as this is often the only true constant, and offers protection from the causes of major injury and ill health. A host of research and opinion would agree that most injuries are caused by an unsafe act rather than a condition. In truth, a construction site, or any other workplace, can never be 100 per cent safe.

In order to really effect a change in safety performance in

construction it is the constants that need to be managed well, using these basic principles. Work is being done to address the physical conditions, and it needs continual focus, but would not add value to this article. This leaves the main constants, which are the people and the organisational factors. The creation of safety passports and other competency systems is starting to address basic site safety skills and awareness. But, is this enough to make a visible improvement in safety performance?

Rather than acting as a complete solution, the aim of this article is to promote further discussion and propose ideas. Some of these solutions have been tried and tested elsewhere, and some have arisen from discussions that have taken place with people in the industry during the preparation of this article. What follows is an amalgamation of these proposals based on basic principles integrated with behavioural principles.

### 1 Educating not directing

Companies of any size can seek to educate people as to why things should be done rather than to 'just do it'. It takes longer to educate people in safety principles, such as the importance of reporting a near-miss, but experience has shown that it delivers more sustainable improvements.

### 2 Talking the language of business

A recent straw poll of directors and managers came back with comments such as 'don't talk to us about health and safety, talk to us about business impact, reputation risk and liability'. Safety professionals need to influence, persuade and provide rock-solid business cases for safety, which show the cost benefits.

### 3 Leading and not just managing safety

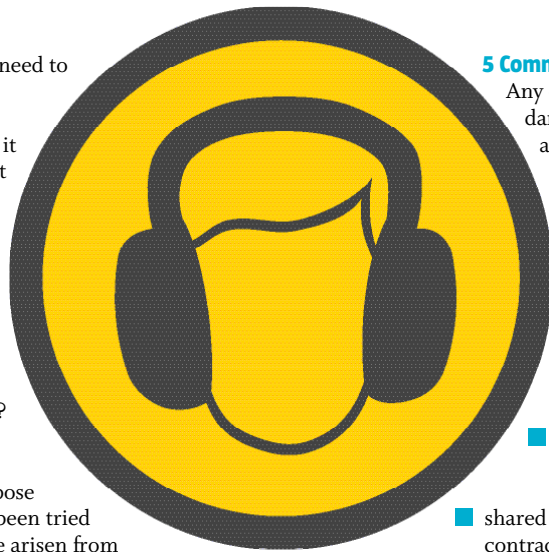
Some organisations have started to develop leadership skills in their management and site teams. This should become the norm in the future so that site managers and team supervisors influence safe working. This starts at the top, and therefore requires influential directors and senior managers, who hold the purse strings and have the greatest influence, to be on-side. Otherwise the change will not be sustainable.

### 4 Leading as well as lagging indicators

Some organisations currently seem to have regressed back to using the accident frequency rate (AFR) as the main measure of performance. This is like driving a car when only looking through the rear-view mirror. To effect improvements, other industries use quality measures of the inputs and not just the outputs from safety. These can include:

- quality of site safety observations and the speed and adequacy of closing out actions;
- contractor and site safety team review problem-solving quality;
- 360-degree feedback on safety leadership;
- progress against a safety leadership competency framework;
- observations and monitoring of effectiveness of toolbox talks and briefings;
- site-led open team surveys and safety targets (rather than confidential surveys).

The AFR can be a useful measure, but should never be used in isolation.



### 5 Commercial reward

Any commercial reward based solely on an AFR is dangerous as it can discourage reporting and apply many negative connotations to an open and honest culture. Good examples of commercial reward include:

- financial rewards for solutions to safety and production issues;
- a balanced score-card approach for safety performance based on leading and lagging indicators;
- progress bonus only being given if the leading and lagging safety targets are met;
- individual site supervisor/manager and/or contracts manager bonuses based on site performance of contractors;
- shared financial bonus with main project contractors based on leading indicator measures.

### 6 Simplification of documents

Historically great emphasis has been put on suppliers and individuals creating and signing up to weighty plans and method statements. Being expected to read a large document and then sign to say you agree has not shown much evidence of improving performance. One UK contractor has found piloting different ways to communicate this information much more effective, for example:

- greater involvement of suppliers sharing safe working practices to gain consistency across different projects;
- brief on-site documents that are specific to each trade and the specific hazards in their area of work, not a generic document that covers all site hazards;
- identifying, observing and measuring leading behaviour associated with the task sheets, as well as the wider site health and safety plan.

### Challenges for the future

So what are the challenges for the future of UK construction? From the research undertaken for this article and other ongoing work, the supply chain, not just the leading players, need to consider:

- development of safety leadership and a belief in safety as a business value in small and medium-sized contracting companies;
  - major development of the skills and approaches of safety professionals, so that they act as supportive internal consultants and let line site management lead safety;
  - raising the profile of health in construction;
  - balancing commercial gain with reward for proactive safety management;
  - ramping up resource and competency in the UK to meet demand and effectively managing resources of non-UK origin effectively.
- The tide has started to turn but sustainable change will take time. Second and third-tier suppliers now need to take up the challenge, which, with the right commercial arrangement with major contractors, can reap financial rewards for all while continuing to reduce the unnecessary burden of loss of lives and injuries. ■

### References

- 1 Jolliffe, G. (2006): 'Not in the wings', *SHP*, Feb 2006, pp36-39
- 2 Langford, D; Rowlinson, S; Sawacha, E (2000): 'Safety behaviour and safety management: its influences on the attitudes of workers in the UK construction industry', *Engineering, Construction and Architectural Management*, Blackwell Science Ltd.
- 3 Reason, J. T. (1997): *Managing the Risks of Organizational Accidents*, Ashgate, Aldershot.