

## **ENHANCING SAFETY CULTURE – SIMPLE, EFFECTIVE APPROACHES TO MAKING IMPROVEMENT**

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### **INTRODUCTION**

Many companies want to enhance their safety culture or some aspect of safety behaviour and struggle to find effective ways forward. Some embark on a safety culture survey or high profile series of workshops without being sufficiently prepared to comprehend the outcomes, and as a result respond inadequately, at least in the eyes of the workforce. This can create a situation that is worse than if the assessment had not been undertaken! Management loses credibility, another opportunity is lost, and it can be more difficult to engage workforce interest and participation in the future. Similarly, many companies have, or are considering introducing behavioural safety schemes to improve safety behaviours – yet there is a trail of failed schemes or ones that are of limited success.

So how else can you approach these issues, especially when a management team genuinely wants to make improvements, but isn't sure what to do? How do you avoid raising workforce expectations that result from many safety culture assessment approaches? What simple effective approaches can organisations and individual managers use to make improvements?

This paper presents two approaches that can be highly effective – the first is a *solutions-focussed* approach that can be used at any level – an individual manager or the corporate team. This approach that shows huge potential for the world of safety and risk management; and helps to explain why traditional approaches to plan and improve safety culture are fatally flawed due to the inherent complex nature of organisational behaviour. The second approach is a low profile human performance/safety culture assessment that can be focussed on particular areas or topics. It can be highly effective in informing management decisions on priorities and effective improvement strategies. The two approaches can easily be linked making an even more powerful way of moving forward.

### **PART 1 SOLUTIONS FOCUS: A POSITIVE APPROACH TO ENHANCING SAFETY CULTURE**

#### **INTRODUCTION**

Do your workers spend more time working without injury than time spent getting injured? Do they work safely on the whole? Or are you less positive? So, do they work safely at least *some* of the time? For a lot of us the answer is going to be a clear “yes” to most, if not all, of these questions. So why is it that we spend so little of our time as health

and safety professionals working out what it is that our organisation already does that works?!

Here we outline a refreshing and powerful approach, *“Solutions Focus”* to creating positive change that has huge potential in the H & S world. We describe how the approach has been used very successfully in organisations on a variety of culture and performance enhancement topics.

### PROBLEMS HAVE THEIR PLACE

The health and safety world is often dominated by problem analysis and the search for “root causes”. Of course this is very often necessary, from the enforcer determining whether there has been a breach of law to a personal injury solicitor determining who was negligent for any compensation claim in our fault-based system, and often the troubleshooting engineer for example. Problem focus plays its part.

However, many employers see the benefits of a proactive management style at every level in the organisation and in this context, problem focus can and does frequently lead us astray, wasting resources analysing the “problem” that could more usefully be used in generating solutions.

### FIND WHAT WORKS AND DO MORE OF IT

It is not logically inevitable that solutions will become apparent with an analysis of the problem. Even when solutions do emerge from this process, it is often after considerable resource has been spent understanding the problem from all angles and exploring a large range of “root causes”. But there are other routes to solutions and the key is to really understand what it is we are trying to achieve and look for where it, or even small parts of it, is already happening.

A good example the “problem” of M25 stop-start and resulting traffic jams. How do we get from its identified cause – people changing lanes without enough space – to a now recognised “solution” – reducing the speed limit? It is clear that a solutions focus question such as “When and where do we currently find traffic moving smoothly, even only a little?” is likely to lead quickly to this solution. By contrast the question arising from a problem analysis - “How do we stop drivers changing lane without enough space?” is a longer way away from that solution.

We’ll return to this in more detail and see that this applies across the board whether we are formulating new health and safety policy and strategies or are trying to find a way to ensure everyone wears personal protective equipment.

### UNDERSTANDING COMPLEXITY

We all know that organisations with human beings are inevitably complex. On our own we are complex enough beings, but the interactions between even a small number of people and the behaviour patterns that become apparent (or don’t) within an organisation are vast

and probably impossible to fully understand. Try to understand these dynamics and then try to predict what will happen if we change something, and you are soon dwarfed by the scale of the analytical quest. The reality is it's rarely worth the effort!

This thinking has emerged from academic work on chaos and complexity, and developments in therapy throughout the 20th century (and some will recognise more ancient origins in philosophy). The last 18 years or so have seen its greatest impact in the world of therapeutic change and, around the turn of the most recent century, saw the increasing recognition of its potential value in organisational settings (McKergow 2002).

### COMPLEX SYSTEMS CANNOT BE FULLY PREDICTED

Whilst it has diverse origins, McKergow locates Solutions Focus thinking very much within the systemic tradition and shows how this provides a positive and pragmatic approach to organisational change. A key relevant and recent strand in contemporary systems thinking is "emergent systems" appearing in the 1990s. Most relevant here is a property of "complex" systems of interacting agents – they can and do exhibit large-scale coherent behaviour which cannot be predicted by analysis of the rules that the agents within that system follow. This can be the case even when the system is computerised and the agents follow quite simple rules of interaction. And it's been shown, mathematically, that this is a property of such systems, rather than being some failing in our predictive powers.

Further than this, all elements of the system are making some sort of contribution to the overall behaviour, but exactly how any one element relates exactly to the outcome cannot be said.

What does this mean in practice, especially for safety culture and human performance issues? First it tells us that any one of the elements within a system can, in principle, initiate overall system change. But secondly, it means we cannot predict with any certainty what will happen overall if we change something, hence detailed long-term planning is likely to be fatally flawed. So does this leave us with nothing to do? We would say emphatically not! Since quite what will happen will only be found once it is tried out – we need to try things out and can do this with any element(s) of the system. In a sense this increases our options for initiating change though it also suggests that we need to try out small changes and wait and see what happens as a result. If a change works we can try to do a bit more of it; if not, we can try something different.

### NO TWO SITUATIONS CAN BE THE SAME

So how do we decide what to change and how do we influence? Now we need to return to the individuals and how they relate to each other and what is around them. Here *Solutions Focus* builds on ideas that meaning is constructed in the "in-between"; in other words, words and language, and even events can only be understood in the precise circumstances

in which they occur – where, how and between whom. No two situations, no two uses of the same word, can ever have precisely the same meaning (or meanings).

So how can we ever know anything? The lesson from this is simply that if we wish to understand, we have to take each situation at face value, as it is now. To change a complex system with people we have to operate completely in the “here and now” responding to the situation and exploring for possibilities.

### IMPLICATIONS FOR SAFETY CULTURE AND HEALTH AND SAFETY

As we’ll see in more detail in part 2, there is already an understanding of the factors that affect “safety culture”. Figure 1, for example, shows one framework making clear the complexity of factors – they are related both to people (and their interactions) and their interactions with the safety management systems of the organisation. And this is what underpins an organisation’s approach and effectiveness in successfully managing health and safety.

Health and safety professionals have developed methods for investigating things that have gone wrong, or have shown signs of going wrong. The profession has succeeded in recognising, and also in promoting acceptance, that accident causation is complex. After all, accidents (and illness) happen within this complex organisational context where people interact with one another and systems. Consequently the immediate response that “an accident must have been the operator’s fault” is far less common today. Having recognised the complexity of accident causation, the response of the health and safety community has been to strive to understand and analyse this complexity. This has led to much of modern health and safety management practices.

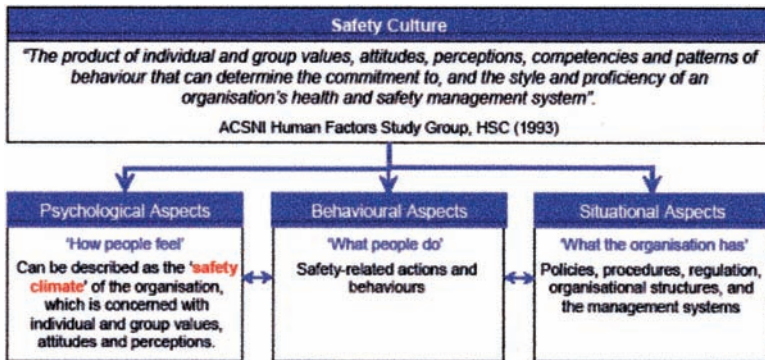


Figure 1. A three aspect approach to safety culture (based upon Cooper, 2000)

Thus there is a range of accident & incident investigation models in the safety field that recognise this complexity at least to some extent. Differences arise in emphasis, some focusing on management and organisational oversights and omissions while others consider human performance/error problems in more depth. However they all focus on where things are going wrong and on understanding these parts of complex systems. They also seek solutions from the analysis of the problem, the things that have gone wrong within the system.

As an example, “root causes analysis” for accident investigation. This accident causation model broadly categorises two types of factors that lead to accidents – causal factors and root causes.

Causal factors are the immediate, usually fairly obvious and direct causes of accidents. They are often factors such as human error in equipment operation, or faults in equipment. Investigations that simply seek to identify these and base recommendations on these are usually considered poor investigations.

A more sophisticated investigation will also consider the “root causes” – the weaknesses in the safety management system which led to (or allowed) the causal factors (the direct causes) to be manifest. Examples of where “root causes” can be found include within policy, maintenance systems and standards, supervision practices and standards, training, communication etc. Left unidentified and uncorrected these weaknesses risk allowing similar accident causal factors occurring again. So, the theory goes, if we understand the underlying root causes we can correct them and prevent further loss. Indeed Livingstone et al. (2001) say “It is only by adopting investigation techniques that explicitly identify root causes, i.e. the reasons why an incident occurred, that organisations may learn from past failures and avoid similar incidents in the future”.

Indeed, it is easy to agree with this as a way of learning from past failures, and as said, this kind of analysis has its place. The message of this paper is, however, that we can *also* learn from past/current successes to ensure continued avoidance of incidents. Consideration of complex systems indicates that there is a good chance that analysis of the problem in order to identify solutions will be time consuming and, very probably, flawed. So why not try a simpler and more direct approach?

## **SOLUTIONS FOCUS – A MORE EFFECTIVE WAY OF ENHANCING HEALTH & SAFETY?**

Solutions Focus is an approach, now established in other fields, that helps us to “mine” the secrets of our good performance. It helps us take a fresh view of the way we work and to recognise, value and do more of the things that work, and to stop the things that don’t work and do something different instead!

Much of this section is based on the approach introduced in Jackson & McKergow (2002) who are amongst the leaders in spreading the ideas of solutions focus for organisations. This section applies these ideas to health and safety.

So the following is an example to give a flavour – a review of procedures. Let’s say our problem is that “people aren’t following safety procedures”.

Problem focussed	Solutions focussed
<p><b>Q: Why won't people follow the procedures?</b>  A: Lazy, know better, familiar, experienced etc.</p> <p><b>Q: How do we make them follow the procedures?</b>  A: Don't know – it's difficult; could try:</p> <ul style="list-style-type: none"> <li>• Sanctions – for laziness, improve disciplinary procedures</li> <li>• Training – make them see value; realise they aren't always right</li> <li>• Pre-job briefings &amp; refreshers</li> <li>• Make it compulsory + zero tolerance</li> <li>• Recruit harder working people</li> </ul>	<p><b>SF Q: When do people use the procedures?</b>  A: Hardly ever</p> <p><b>SF Q: So there are a few times when they do. That's great – something is working. So, when is it that people do use the procedures?</b>  A: When they find them useful</p> <p><b>SF Q: When's that?</b>  Several circumstances:</p> <ul style="list-style-type: none"> <li>• When they are unsure of something</li> <li>• When the procedures are easy to use &amp; contain useful material</li> <li>• When there are pictures/diagrams</li> <li>• When they're doing unfamiliar jobs</li> </ul>

But as we've said – there are no formulae. There are no two organisations where procedures are followed in exactly the same way at the same times. This solutions focus approach depends on using what is actually there, and seeing clearly where it is that you want to get to with that particular organisation.

### THE SOLUTIONS FOCUS APPROACH

In essence, the **Solutions Focus** is remarkably simple, the basic tenets being:

- Find what is working and do more of it
- Find what is not working and stop doing it
- Introduce something different and respond to its outcomes (either build on success or stop it!)

Implicit in these tenets is the belief that the solution, or at least parts of it, is already present and many of the resources required to develop the solutions are already at hand. It is a world of possibilities. But how do we know what is working? First we need to explore where we are and crucially what we want, and we need to do this with people who want change. When we have a fuller understanding of what we want and know in some detail what it looks like, we can then explore where there are instances where even a small part of that picture already appears and how it is that the organisation already achieves this.

Given the unpredictability of complex systems we need to try small changes and see what happens to the system. When we see what's working this will give us more ideas about new small steps. If it doesn't work, then we should stop and try something different.

Done well, this process cannot fail to make people feel better about themselves, and help groups work together constructively. Maintaining a focus on what IS working precludes blame talk. It will also, usually very quickly, give ideas about what is working that an organisation could do more of.

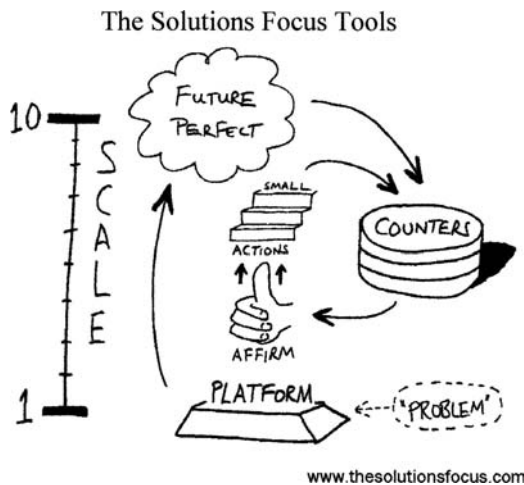
**HOW DO WE DO THIS?**

Jackson & McKergow (2002) have described the principles of how to work in a solutions-focussed way. Some of the more important elements are understanding what to build on; identifying the “perfect” future; and using scaling as a very powerful tool for moving forward.

In becoming more solutions-focussed in our work we need to always keep these in mind. They also underlie the useful process that Jackson & McKergow have developed to bring a solutions focus approach to bear. Figure 2 (from their 2002 book) shows this process and introduces some ideas and techniques. The following outline explains Figure 2 and some of the terms used.

**BUILDING THE PLATFORM**

We generally will find ourselves beginning with the “problem” e.g. “people don’t follow procedures”. Initial discussions will often start from this problem and talk firmly revolves around things that are *not* wanted – lazy difficult people, ignored procedures, no appreciation of peoples’ effort in developing the procedures. This is unhappy unhelpful stuff and



**Figure 2.**

the discussion needs to be turned into an exploration of what IS wanted in concrete terms and begin to shift into a world of possibilities and resources (e.g. we have reasonable procedures, they are used often; our people have most of the competences required to make appropriate changes; lots of people are motivated to develop procedures they find useful etc.). This stage, Jackson & McKergow call building the platform.

### THE FUTURE PERFECT

When we've better understood what it is we want to achieve we can then deepen our understanding of what this is, and strengthen the solutions talk, by moving into the "Future Perfect". This is a common solutions focus technique, often referred to as asking the "miracle question", which would go something like:

*"Just imagine that you've been away on holiday – and while you've been away a miracle has happened. Everything has become perfect – How will you discover this? What will be the first things you notice that will tell you?"*

So, in our example our perfect world, with some exploration in the world of possibilities, is actually likely to be that certain jobs are carried out safely. Indeed we may even find that our perfect world is that certain jobs aren't carried out anymore. But let's say that it's that procedures are followed every time they should be. We need to explore *exactly* what that looks like, being really specific about what procedures we mean, what people will be doing when we notice in our new world that they are all following procedures when they should.

### SCALING, COUNTERS AND AFFIRMING

*Scaling* is very simple. We want to know where we are now on a scale of 1 to 10. Having visualised our perfect world in detail we assign that world a rating of 10 out of 10. Zero on our scale is the world where *none* of this visualised behaviour is happening. Then we ask: "where are we now on this scale?"

This is so simple yet, time and again has been shown to be so powerful. It is unusual for people to say that they are at zero, and even those that initially do, on reflection admit there is at least the odd occasion when it's not a zero. Even the most pessimistic are likely to say at least 1 or 2. And this is immediate evidence that, in that 1 or 2, something is working somewhere, at least for some time, however fleetingly.

So the next stage is exploring what resources they are using to get them to 1 or 2 – in other words identifying what is already working however small. Jackson and McKergow call these *counters* and we need find as many as we can. It's really important to acknowledge and value resources (or *counters*) that we already have – these are likely to be building blocks to solutions. Reminders that we have them seem to build optimism and the mood that there are possibilities, which in turn leads to more ideas about how to make use of them. Thus *affirming* is a really important part of this process – acknowledging, praising and valuing the existence of resources like, for example, pockets of "good"



behaviour builds a fundamental optimism into the process. Contrast this with the problem analysis route to solutions – here we talk about barriers, difficulties to overcome conveying a sense of pessimism and “it’s all too hard”!

### SMALL ACTIONS

Once we have really understood what gets us to 1 or 2, we can then start discussing how we get to the next point in the scale. A leap from 1 or 2 to the perfect world is very daunting, and brings back a mood of lack of possibility to the discussions. We need to take small steps to move us gently up the scale. This can seem much more possible to people and is much more likely to maintain optimism.

Having taken a small step or two we then need to notice what happens, what it is that changes and seek out any new *counters* – new situations where people follow procedures, a realisation in someone what the point of the procedures are for etc! These need to be affirmed and built on!

### GETTING RESULTS IN HEALTH AND SAFETY

The following are examples of the use of a solutions-focussed approach to create positive improvements to health and safety behaviour which one or other of the authors has encountered or played a direct part in.

### SHIFT HANDOVER CONFLICT

The shop floor shift staff of a pharmaceutical manufacturing company rarely got together and had various grievances between shifts, especially about problems at handovers. This was classic stuff, with the outgoing shift wanting to get away as quickly as possible and hence leaving things unfinished, often not providing a good briefing about the state of plant, process, problems and on-going work in the area etc. During a workshop they approached the workshop facilitator and asked if they could have an hour together to “discuss things” without their managers. They invited the facilitator to attend, in part to keep order. Initially there was an amazing tirade of insults, abuse and accusations – so the facilitator asked if he could offer a process that would allow them to get something constructive from their time and everyone agreed. As is so often the case, this was a covert solutions focus operation! The facilitator brought the workshop round to a discussion about possibilities and what was already working (even if it didn’t happen enough). So they had 2 flip charts – one “More of” i.e. what they needed to do more of to get better shift handovers and communications – the second “Less of” i.e. what to stop doing. Within 15 minutes the charts were full and there was total agreement on virtually all the ideas – the seeds of which had already been happening. They also realised that they were all causing each other the same problems. To make sure that they would stick to the ideas someone suggested putting the flipcharts in the control room and reviewing

progress. A follow-on workshop 6 months later found that progress had been excellent and the vast majority of ideas were now a routine for all shift handovers (on their plant).

### SAFETY EYE WEAR

Another good real-life example is from an Italian chemical factory, whose managers wanted people to wear safety glasses. The workers, though, were reluctant. In their solution-focused sessions they asked themselves ‘When does this miracle (of people wearing safety glasses) even partially occur? When do they wear glasses anyway?’, and they realised that their workers were only too willing to wear cool, fashionable sunglasses!

So they commissioned a set of safety glasses made with mirror shades, which the workers instantly began wearing all the time. From just a small change in the design came this very significant change in behaviour and an improved safety record.

### HARD HATS

There is a similar UK story – an example where there was success in getting car workers on Merseyside to wear hard hats. Through exploring the world of possibilities managers and safety representatives worked out that one potential resource they had to motivate the vast majority of their workers at risk was their allegiance to one of two local football clubs! Involving the workers in the choice of hard hats and producing them in the appropriate team colours (with an option for those not interested of course) led to much improved compliance with the hard hat rule!

These two PPE examples from different cultures show clearly the value of really appreciating the resources – the “*counters*” you have in the specific setting. They are all too easy to miss if solutions based on universal theories are imposed.

### HSE INSPECTOR

Jackson & McKergow recount a slightly different type of health and safety example, showing how versatile and universally applicable this technique is.

A chemical site had a problem with a threat of severe enforcement action from their new health and safety inspector. In the past, working relations with successive inspectors had been reasonable. But now the new inspector was proving uncooperative when presented with the plant team’s latest plans to improve the site’s safety culture. The team members were surprised to find him very officious and correct – wanting to see every piece of paper and reluctant to engage in the customary informal exchanges with managers.

The safety team knew the essence of the problem: the inspector was stopping them from making progress with their safety culture plans. They tried all ways of improving relations but to no avail. So what to do? An examination of why the inspector wouldn’t see sense? A ‘barrier analysis’ of what was impeding matters? Attacking the inspector by official complaints to his seniors?

The safety team decided to bring in consultants who took a solutions focus approach. When asked to rate their best encounters with him on a scale of 0–10, one manager quickly retorted – “Zero!”... and, after a pause. “. . . apart from once, when it was a three for 20 seconds . . . ”

So a glimmer of hope! When asked, what he had done to bring about this dramatic, if brief, improvement, the manager said “I suppose I stopped pushing him for a moment and gave him time to think.” The mood changed and others then began to share what they had done during their own best exchanges with the inspector. From these small gems of information about what worked, the team came up with a list of 14 actions that they could do quickly, simply and cheaply to move things just one point up the scale. The actions included bringing fewer people to meet the inspector, wearing name badges at meetings and giving him more notice of impending questions and issues, as well as noticing what was working best.

A few weeks later, matters were much improved. The threat of enforcement action had been lifted, and one manager said that she knew they were making real progress when the ‘impersonal’ inspector had enquired about her recent holiday!

## CONCLUSION

The part has highlighted the main elements of the solutions focus process and given some real examples from the health and safety world to illustrate its potential value. It shows that often the “solutions” to enhancement (or at least parts of it) are already happening, if only we appreciated it. The important thing is to recognise how to build on good aspects of the current situation – both existing resources and pockets of positive behaviours. We’ve shown how the approach generates a far more positive and optimistic attitude to change – and one that can embrace employee participation from the outset, helping to generate ownership, motivation and sense that real change can be achieved.

And finally – have a look at Figure 3. You’re skiing – what do you see?

## PART 2 SAFETY CULTURE & HUMAN PERFORMANCE ASSESSMENT

The first part (of this paper) has shown how solutions focussed approaches can be used to enhance aspects of safety culture and how complexity can confound improvement plans due to the unpredictability of outcomes. Companies need to prioritise their activities and allocation of resources in an ever more demanding commercial and health & safety environment. So here we describe a simple approach that can be used to inform management on where and how to focus improvement actions.

### SAFETY CULTURE – DEFINITION & KEY ASPECTS

First a re-cap on a few fundamentals. A recent review for the HSE (HSE, 2005) shows that there is no universally agreed definition for safety culture, however the definition produced



by ACSNI<sup>1</sup> (HSC 1993) is both useful and widely referred to:

*“The safety culture of an organisation is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organisation’s health & safety management.*

*Organisations with a positive safety culture are characterised by communications founded on mutual trust, by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures”*

Additionally, a useful framework was developed by Cooper (Cooper, 2000) and shows three main aspects (see Figure 1):

- Psychological aspects (often called “safety climate”) – how people feel
- Behavioural aspects – what people do
- Situational aspects – what the organisation has, or has put in place

In combination these are useful in that they clearly show that “safety culture” is complex and relates to both the people within an organisation and their interaction with the safety management systems of the organisation.

The work done by the Keil Centre initially for the HSE (HSE, 2000) introduces the concept of safety culture maturity (see Figure 4) with 5 notional levels.

<sup>1</sup>ACSNI = Advisory Committee for the Safety of Nuclear Installations.



Figure 4. Safety culture maturity® model



Figure 5.

This model suggests that an organisation cannot short cut safety culture maturity (e.g. jumping from Level 1 to Level 3) it must progress through each stage. This is a very important consideration for safety culture enhancement as the improvement interventions must fit the existing culture and be appropriate to move it towards the next level.

### **SAFETY CULTURE ASSESSMENT – METHODS & DIFFICULTIES**

With no universally agreed definition, a complex concept with many aspects appearing “intangible” then it is not a surprise that most safety culture assessment methods take a pragmatic approach. They all aim to measure key aspects of the overall safety culture with most aiming at the safety climate (attitudes and behaviours) that is generally outside traditional H&S monitoring processes. Table 1 show some of the approaches for measuring aspects of safety culture. The most common approach is a safety culture/climate questionnaire (HSE, 2005 and RSSB, 2003). Additionally the Keil Centre has developed a workshop-based approach using the Safety Culture Maturity Model (SCMM). A review of techniques (RSSB, 2003), rated the HSE’s Climate Safety Tool (survey) and the Keil SCMM approach as being amongst the best to use.

So what are the problems with these approaches and why might they not be the best way of determining how to improve the safety culture and performance of an organisation, particularly when the management are unsure as to what to do? Table 2 shows some of the cited problems (from HSE, 2005 & 2002 and our experience), particularly with survey-based approaches. The main problems are that they:

- Raise workforce expectations which are often not met unless management are committed, prepared and resourced to respond promptly to the outcomes
- Highlight the issues – but require interpretation and frequently additional investigation to determine the underlying reasons for the responses; even when these are determined they do not easily identify what improvement actions are required apart from a few very specific ones
- Have a high resource burden – cost, management & workforce time
- Are poor at eliciting concerns and issues outside the predefined topics

In summary, as a way of informing management as to what to do they are relatively poor and have many hidden dangers. However, they may be very appropriate if they are implemented deliberately as a high profile demonstration of commitment to safety and as a way of allowing the whole workforce to participate in safety improvement. In this case management has probably already second-guessed the main issues and is ready to respond. Recently we have encountered several companies who have fallen into the trap of conducting major safety culture assessments and then failing to respond to their outcomes as they were either not ready to respond (both in terms of commitment and/or resources) or did not know how to progress.

**Table 1.** Safety culture measurement approaches

Measurement approach	What it measures	Examples	Comments
Safety Climate surveys	<ul style="list-style-type: none"> <li>Safety climate – i.e. Attitudes &amp; perceptions of workforce on pre-determined topics</li> </ul>	<ul style="list-style-type: none"> <li>HSE Safety Climate Survey Tool (CST)</li> <li>Aberdeen University offshore Safety Questionnaire</li> <li>RSSB Safety Culture questionnaire</li> <li>Robert Gordon University Computerised Safety Climate Questionnaire</li> </ul>	<ul style="list-style-type: none"> <li>Widely used approach</li> <li>HSE CST appears to be the most widely used</li> <li>Can provide useful insights into the safety climate of the organisation</li> </ul>
Safety Culture workshops	<ul style="list-style-type: none"> <li>Safety climate</li> </ul>	<ul style="list-style-type: none"> <li>Safety Culture Maturity Model workshops (Keil Centre)</li> </ul>	<ul style="list-style-type: none"> <li>The SCMM approach is designed to give insights into the safety climate and consider the overall safety culture maturity</li> <li>Workshops can be used effectively to generate improvement ideas in addition to an assessment of the safety climate/culture</li> </ul>

*(Continued)*

**Table 1.** *Continued*

Measurement approach	What it measures	Examples	Comments
Safety Management audits	<ul style="list-style-type: none"> <li>• Defined aspects of the safety management systems</li> <li>• More sophisticated approaches measure both presence of systems and how well they are being used</li> </ul>	<ul style="list-style-type: none"> <li>• British Safety Council 5 Star Audit</li> <li>• International Safety Rating System</li> <li>• TRIPOD</li> </ul>	<ul style="list-style-type: none"> <li>• Focus primarily on the safety management systems not the prevailing attitudes and behaviours</li> </ul>
Performance Indicators	<ul style="list-style-type: none"> <li>• Lag indicators measure actual H&amp;S performance outcomes e.g. no. of loss time accident cases</li> <li>• Lead indicators measure performance of factors believed to contribute to safety (e.g. no. of safety observations completed)</li> </ul>	<ul style="list-style-type: none"> <li>• No. 3 day loss time accidents</li> <li>• Total recordable incidence rate (per 200,000 hrs worked)</li> <li>• Reportable injury frequency rate (per 100,000 hrs worked)</li> </ul>	<ul style="list-style-type: none"> <li>• Useful for measuring important aspects of safety performance – can help to point to strengths &amp; weaknesses in the overall safety culture</li> </ul>



**Table 2.** A summary of problems relating to safety culture surveys

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**Problem or Limitation**

- Full workforce surveys raise workforce expectations of management's responses; if these are not met (within a relatively short timescale) then management's credibility is diminished – good communication prior to the survey, an understanding of the likely responses, commitment and resources to address the issues are all essential to ensure credibility is not lost
  - Survey responses highlight issues but rarely point clearly to the underlying factors causing the responses. Further investigation is frequently required to interpret the responses – even then knowing more about the problem often does not determine what to do to improve
  - Surveys require a considerable investment in terms of cost, management and workforce time. There needs to be an upfront communication to the organisation; external costs for the survey implementers, frequently considerable effort in interpreting then determining how to respond to the outcomes
  - Ensuring high response rates – ideally surveys should aim to get over 70% responses, this is rarely achieved. Low response rates cast considerable Uncertainty over how representative the results are – those most dis-affected are least likely to respond yet their views are essential. Obtaining high response rates can be achieved with good prior communications and if the questionnaires are completed at work e.g. during a team briefing
  - Surveys only examine very limited aspects of the safety management systems – yet these are the organisation's foundation for hazards identification and control
  - Surveys can only focus on their pre-defined key areas
  - Surveys can't follow-up on issues raised (e.g. in free text comments)
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**WHAT DO WE WANT/NEED TO IMPROVE?**

So if management is looking for key information to help determine how to improve what other choices are there? The first consideration is what do we really want to improve most – safety culture or safety performance? Inevitably the answer is both but most companies are looking for quick visible improvements in safety performance that are also consistent with enhancing the safety culture. Consequently we need to:

- Understand and build on the existing safety culture
- Identify the key things to improve to enhance safety performance (both short and longer term) – this requires consideration of both safety climate and the safety management arrangements

As there is a considerable amount of information (from audits, safety performance indicators etc.) the organisation may well be able to identify a limited number of key areas or topics that require detailed consideration. Consequently a flexible approach that can assess key aspects of the safety management arrangements and the relevant parts of the safety climate within the organisation is required. Additionally an approach that can be

relatively low profile allows management more time and freedom to determine how it should respond to the findings.

Greenstreet Berman has developed such an approach that can be tailored to assess safety culture and human performance related issues. Our experience to date indicates it can be a very useful and powerful tool for helping identify issues and improvement strategies, particularly as aims to identify “strengths” i.e. what’s working well – as well as problem areas.

## **DESCRIPTION OF THE APPROACH**

The process is very simple and can be tailored according to the breadth and depth of investigation desired. It includes interim reporting of revealed issues for consideration that may alter the scope and extent of the investigations. The basic steps are as follows:

### **A. INITIAL DISCUSSIONS & OBJECTIVES**

These are usually conducted with H&S manager & senior management team. Their purpose is to identify the initial key areas for the assessment, determine expectations in terms of depth of assessment and outcomes desired, and to define any constraints for the work. Typically the investigations are targeted on particular activities or issues and selected sections of the workforce e.g. operations and maintenance departments. These discussions also alert the management team to the communications required to accompany the process.

### **B. PRELIMINARY INVESTIGATIONS**

A small number of people with useful perspectives and knowledge on the issues are interviewed and relevant safety management systems reviewed. This allows the assessor to gain sufficient insights into the issues to identify a cross-section of staff to be selected for more detailed interviews, and identify those parts of the safety management systems for a more detailed study. A site tour is conducted usually with an experienced first line manager to gain an overview of the site, its processes and safety management systems. This includes consideration of the general ergonomics, house keeping standards and observation of people on the site. From this phase, the assessor identifies the areas for more detailed investigations; it also shows if the scope of work is correct or needs altering.

### **C. MAIN INVESTIGATIONS**

Interviews are conducted with the selected staff – normally people who are likely to be able to provide considerable insights and perspectives into both issues and what’s working well. This usually includes all levels to help reveal differing perceptions and attitudes. Typically around 15–20 people may be included. The interviews use a semi-structured format in part using information gained during the preliminary investigations.

They are 1 : 1 generally and typically last around 1 hour but are flexible according to the information being elicited. This approach allows the assessor to follow-up on issues revealed that then can alter the investigation e.g. include additional personnel to interview; require certain facts to be checked; identify particular aspects of the safety management systems to be studied. Following the interviews the selected parts of the safety management systems are reviewed.

#### D. INTERIM FINDINGS

The initial findings are discussed with the site management to determine which areas should be considered further, particularly via workshops. These allow greater consultation on key topics to be obtained, and can help to reveal underlying causes of problems and generate ideas for improvement i.e. combining both problem analysis and solutions focussed approaches. The interim findings also allow the initial scope of the work to be reviewed and revised as appropriate.

#### E. WORKSHOPS & ADDITIONAL INVESTIGATIONS

Workshops are held on specific key topics or for a selected department or group of staff. The aims being to ensure a broader consultation with all relevant groups and levels of staff (if necessary via separate mini-workshops for differing groups) and to identify possible improvement ideas, particularly using solutions focussed methods. The workshops are designed and run according to the issues and typically last around 2–3 hours. These are complemented by any additional examinations of the safety management systems and / or discussions with individuals that have been identified.

#### F. REPORTING OF FINDINGS

The final report to management presents an overall summary and detailed findings. It covers both key strengths observed – important as they help to understand the overall culture level and what to build on – and the weaknesses found. The report prioritises the issues, gives options for improvement and suggests an outline improvement strategy. This addresses the shorter-term safety performance issues and the enablers for enhancing the safety culture. The report findings are discussed with the management team to enable them to understand the findings, the options and the suggested improvement strategy.

#### **OUTCOMES, ADVANTAGES & BENEFITS**

This assessment approach has considerable benefits (see Table 3), key amongst them are:

- It is low profile – workforce expectations are not raised unduly
- It is flexible and can be tailored to key areas – and be modified during the investigations
- It provides far greater insights on the issues and covers all aspects (safety climate and safety management systems)

**Table 3.** Benefits from the tailored assessment

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- The assessments can be directed at key human performance issues or a broader consideration of safety culture – focussing on known priorities can reduce the assessment required and/or provide more detailed insights to be obtained
  - It provides a tailored report to management team giving both an overall strategy and detailed improvement findings
  - It is a low profile approach – consequently it does not raise expectations unduly giving management more opportunity to consider how to respond
  - It provides a far greater insights into the issues investigated than a survey could do; underlying issues are revealed and improvement actions determined
  - The strategy and detailed improvement recommendations are tailored to the current safety culture or the organisation and build on its strengths – hence the organisation can avoid attempting interventions that are not appropriate for its current culture
  - The detailed findings allow many things to be fixed/improved quickly frequently giving a rapid improvement in some aspects of safety performance – additionally the workforce see rapid response which can assist safety culture enhancement
  - The costs of such assessments are much lower cost than a full safety culture assessment (typically around half) – additionally they require less management and workforce support
  - The assessment encompasses both the safety climate (attitudes & behaviours) and the safety management systems
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- The recommendations are tailored to the current safety culture of the organisation and build on its strengths – they address both immediate safety performance issues and safety culture enhancement
  - It is a much lower cost approach than a full safety culture/climate survey

## ILLUSTRATIONS/CASE STUDIES

### PROCEDURE COMPLIANCE

The initial brief from a chemical company was to investigate problems with procedure compliance amongst its operations and maintenance workforce, including contractors. The initial investigations rapidly revealed that the work instructions that shop floor staff were expected to work to were in fact a compilation of information generated for differing purposes – work planning & costing, risk assessment, methods statement. It also revealed that there were considerable problems arising from the work planning process, frequently putting certain groups of specialist staff (e.g. C&I technicians) under considerable pressure. Contractors were also provided with inadequate support if problems arose and were frequently “squeezed” by emergent issues. The interview process revealed that there were considerably differing perceptions about the conduct of operations and maintenance – senior management were apparently unaware of the pressures and non-compliances that the supervisors and workforce readily described.

A highlight of the investigations – showing its potential – was a workshop held to address the work planning process. It involved all relevant groups – operations & maintenance staff using the end work packs; planners, engineers (responsible for authorising & costing the work), risk assessors, projects staff (who inputted resource needs for major projects). The workshop revealed that every group had a differing understanding of the purpose of the weekly work-planning meeting; no one person or group was responsible for the overall work planning process. The work packs had evolved over time and in its then form were not meeting any groups' needs entirely – they were certainly far removed from a useful set of work instructions or procedures for the operations and maintenance staff. Attempting to map out the actual work planning process came as a revelation to nearly everyone present – it both revealed many problems and was able to generate ideas for significant improvements.

The overall assessment was able to identify an overall strategy for improving the culture on site by enhancing safety leadership and developing greater trust between the management and workforce. It exposed the considerable mis-match in perceptions between the senior management and the shop floor of safety behaviours – overall the site was not as mature as the management believed. Recommendations for the procedure compliance issue recommended that the output from the work pack process needed changing considerably – with the operations & maintenance staff being given only the information they required and in an easy to use form (e.g. reflecting the methods statement and risk control requirements along with useful pictures, diagrams etc.). Also the work planning process needed considerable change to reduce the conflicts and pressures on staff arising particularly from emergent work.

## BEHAVIOURAL SAFETY REVIEW

A recent review for a chemical company had a much broader scope. The site had made considerable advances in safety performance, including some approaches focussing on behavioural issues. The remit was to advise as to how to make further improvements particularly on human performance. This review revealed that the site had already achieved a very high level of safety performance and culture. The safety culture could be enhanced via:

- A greater emphasis on demonstrable, consistent safety leadership – the commitment obviously existed but was not always demonstrated consistently
- Greater involvement of the workforce in safety improvement ideas
- Enhanced organisational learning – particularly sharing good practices between departments

As with many high performing companies, the challenge for improving the safety performance was considerable due to the very low number and diverse nature of incidents and significant near misses. Several detailed areas were identified that would help to further improve the safety performance including:

- Greater attention to the standards of fork lift truck driving

- Enhancing labelling across the site – to reduce ambiguity between identical parallel production equipment; and on pipe and cable penetrations
- Introduction of a point of work risk assessment tool for maintenance work
- On-site footwear – banning use of potentially dangerous footwear when moving around the site (high heels and steep hills give inevitable consequences)

## **LINKING SOLUTIONS FOCUS & TAILORED BEHAVIOURAL REVIEW APPROACHES**

The beauty of the solutions focus approach is that it can generate pragmatic improvement ideas that automatically build on the existing culture without the need for any assessment at all. However, it may not be sufficient to determine an overall improvement strategy as an organisation needs to be confident that key safety management deficiencies are being adequately addressed. Hence marrying the two approaches can be very powerful. The tailored assessment provides an overall understanding of both strengths and weaknesses. Solutions focus approaches can be used to generate improvement ideas for both strategy and detailed actions. In particular, a post-assessment workshop for the management team using SF approaches can build on the findings of the assessment and develop a long-term vision for the future coupled to the immediate actions that the team will instigate.

## **SUMMARY**

Solutions focussed approaches appear to have considerable potential in the world of health & safety, especially when dealing with most aspects of human behaviour and safety culture. They complement and can often replace the diagnostic and analytical approaches traditionally used. Much analysis only leads to a better understanding of the problem but does nothing or little in the way of identifying how to improve – if this is the case, then it is time to seriously question its value. Solutions focussed approaches generate pragmatic ideas for improvement that build on the existing strengths and culture within the organisation.

The tailored Behavioural Reviews are an attractive alternative to safety culture surveys; they provide far more insights, do not have the same potential dangers as surveys and can make recommendations at both the strategic and detailed level. Consequently, they are a much better tool for informing management decisions on safety improvement.

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