

# **HOW THE SAFETY CLIMATE TOOL CAN ENHANCE BSI-BSOHSAS 18001 AND ISO 45001**









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## Looking forward

**Scheduled for release in December 2017, ISO 45001 is a new international standard for occupational health and safety management that has been widely discussed as a replacement for the current BS OHSAS 18001: 2007 (1 -2).**

**We know that to meet the new standard, organisations will have to demonstrate more health and leadership and commitment; more worker engagement and participation; and, an occupational health and safety management system that is fully integrated within existing organisational management systems.**

**At HSE's Health and Safety Laboratory we already recognise the importance of making health and safety an integral part of the way organisations do business so that it becomes accepted as 'just the way things are done around here'. This is a view shared by Acclaim, Capita's Health & Safety Accreditation business, who are partnering with us to drive the further adoption of HSL's Safety Climate Tool.**

**Not only does this foster the development of a strong safety culture, it can also lead to improvements in health and safety performance.**

Many of you will probably be doing most, if not all of these things already. Even so, there is always room for continuous improvement. Whether your organisation plans to work towards the BS OHSAS 18001:2007 or look forward towards ISO45001, this white paper will help you consider what more you can do by telling you about:

- The benefits of continuous improvement;
- How to consolidate your evidence for BS OHSAS 18001 and be prepared for ISO 45001;
- What leading indicators are and how they can help your organisation's performance;
- The wider business benefits derived from a strong safety culture; and,
- How you can use HSL's Safety Climate Tool to guide your approach.

## Continuous improvement: why it makes good business sense

Under The Management of Health and Safety at Work regulations, 1999 (3-4), dutyholders have to put arrangements in place to control health and safety risks.

All too often, the focus of these arrangements is on engineering, systems and processes (3) rather than the *'people side of human factors'*. Your workforce is a valuable source of information and how they perceive and engage with health and safety can help you focus where improvements need to be made (5). Continuous improvement is about developing a safety culture where both management and the workforce are fully engaged and committed to making their workplace a healthy and safe place to be in. One of the requirements for BS OHSAS 18001 is to demonstrate that the workforce is being actively engaged and consulted on health and safety matters. This is also a feature of the discussions around ISO 45001.

Regardless of which standard you wish to work towards, the advice that the Health and Safety Executive (HSE) provides on worker consultation and involvement in health and safety decision-making (Table 1) can help you decide where you are starting from.

If you can continuously improve the quality of engagement with your workforce, there are additional business benefits you can achieve (6), including:

- Increased productivity and efficiency;
- A stronger safety culture;
- Improvements to an organisation's bottom line.

**Table 1: Plan, Do, Check, Act. An introduction to managing for health and safety - HSG 275**

Worker consultation and involvement:	
What it looks like when done effectively	What it looks like when done badly or not at all
<ul style="list-style-type: none"> <li>• Instruction, information and training are provided to enable employees to work in a safe and healthy manner.</li> <li>• Safety representatives and representatives of employee safety carry out their full range of functions.</li> <li>• The workforce are consulted (either directly or through their representatives) in good time on issues relating to their health and safety and the results of risk assessments.</li> </ul> <p><b>Beyond compliance</b></p> <ul style="list-style-type: none"> <li>• Feedback mechanisms exist for health and safety matters, such as:               <ul style="list-style-type: none"> <li>- Suggestions boxes or more formal open meetings with management;</li> <li>- Team meetings are held and may be led by employees.</li> <li>- Joint decisions on health and safety are made between managers and workers.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Employees lack the right level of information, instruction and training needed to do their job in a safe and health manner.</li> <li>• Representatives cannot carry out their functions.</li> <li>• Employees don't know who they would go to if they had health and safety concerns.</li> <li>• Health and safety controls don't seem practical or employees are having to work around difficulties.</li> <li>• Line managers don't discuss:               <ul style="list-style-type: none"> <li>- how to safely use new equipment;</li> <li>- how to do a job safely.</li> </ul> </li> </ul> <p>There is little or no evidence of information being cascaded through the organisation (e.g. team meetings, notice boards etc.).</p>



## A brief overview of BS OHSAS 18001 and ISO45001 requirements

**This paper is not intended to provide a detailed look at the requirements of BS OHSAS 18001 or those of the new ISO 45001. However, since you will be required to increase your focus on the ‘people side’ of health and safety management, the following sections highlight some of the key elements you need to consider.**

**BS OHSAS 18001**(7) was developed to be compatible with the ISO9001:2000 (Quality) and ISO 14001:2004 (Environmental) management systems standards so it sits more fully within the *‘strategic framework of the organisation’* (8). The Health and Safety Executive (HSE) HSG65 *‘Managing for health and safety (4) advocates a **Plan-Do-Check-Act** approach, which is also the approach suggested with BS OHSAS 18001. The ‘Check’ or monitoring stage of BS OHSAS 18001 can be carried out informally, but when progress is properly measured or*

*evaluated, it can provide objective information about what is working and what needs to be improved. A requirement of the BS OHSAS 18001 is that organisations take their workforce into account by ensuring **that any procedure(s) for hazard identification and risk assessment** includes ‘human behaviour; capabilities and other human factors’.* (7) The standard recognises the **significant difference that senior management commitment** can make to the safety culture of an organisation. For instance, does your ‘Top Management’ review the organisation’s occupational health and safety management system at planned intervals? Is any consultation with the workforce included in management reviews? Are decisions made based on the feedback from a small number of worker representatives rather than involving the wider workforce? Many organisations have struggled to fully integrate BS OHSAS 18001 within their existing management systems, simply because they limit participation in health



and safety decision making. Rather than involve the workforce, it can sometimes seem easier to take a checklist type approach to reviews and audits.

On its own, this approach rarely leads to the levels of improvement in health and safety performance that organisations look for.

**ISO 45001<sup>1</sup>** is the new standard aimed at ensuring that health and safety is an integral part of business management (9). It shares the same structure and core requirements as the management system standards for quality and the environment.

It is anticipated that the ISO 45001 will require organisations to demonstrate that:

- Occupational health and safety is integrated into their business process and considered in strategic plans;
- ‘Top management’ plays an active role in the occupational health and safety management system;
- The importance of effective health and safety management is communicated throughout their business;
- The workforce is provided with the direction and support to enable them to contribute to the effectiveness of the occupational health and safety management system;
- They have taken into account the wider context they operate in as well as their sub-contractors and suppliers in the way they control and manage health and safety.

To some, it may appear that there is little difference between the BS OHSAS 18001 and ISO 45001. However, much more emphasis (9) will be placed on ‘human factors’.

***‘ISO 45001 is an International Standard to enable an organisation to proactively improve its OH&S performance in preventing injury and ill health.’***

<sup>1</sup> At the time of writing, the ISO 45001 is expected to be launched December 2017.

## Preparing the way with HSL's Safety Climate Tool



It is useful to appraise the types of management information used within your organisation to monitor health and safety. In anticipation of meeting the standards set by **BS OHSAS 18001 or the proposed ISO 45001, you will need to provide evidence that can demonstrate your progress. You should aim to have a mix of both leading and lagging indicators. Lagging indicators are measures of what has already happened, such the number of accidents and near misses. Leading indicators measure performance and continuous improvement. Relying on past performance on its own is often a poor predictor of future results (6,7,10,11-15), whereas organisations that pay attention to leading indicators, tend to have a stronger safety culture and better safety performance. This often translates into other**

**business benefits including higher levels of employee engagement, more competent staff and fewer working days lost to accidents (16).**

A key leading indicator that is often overlooked by organisations is safety climate. Safety climate is widely regarded as a robust leading indicator of health and safety performance (16 -18). It is a measurement of the perceptions held by the workforce about health and safety at a given moment in time. The safety climate of any organisation is determined by the priority given to health and safety, the quality of safety leadership, worker involvement, how people work together as well as well as how the workforce engages with policies and procedures.

As such, it can provide deep insights into how the management of health and safety is perceived within an organisation. The requirements for the ISO 45001 includes



some of the key ingredients for a strong safety culture, but where do you start?

**HSL's five stage approach for improving safety culture** – 'Achieving Safety Culture Excellence Now and Tomorrow' - ASCENT<sup>2</sup> combined with HSL's Safety Climate Tool (SCT) can help demonstrate how you have sought to improve your occupational health and safety management systems by:

- Providing objective data from across the workforce about their perceptions of the health and safety culture in their organisation;
- Encouraging greater levels of workforce participation and engagement with health and safety;
- Improving levels of communication;
- Integrating health and safety within existing systems;
- Identifying further areas for continuous improvement.

**The five stage approach involves all levels of the workforce**, this can help focus resources where they will make the most difference (17-18), and improve attitudes towards health and safety, as these are often a strong motivator of good, bad or indifferent safety behaviour (19). Using the data from the HSL's SCT alongside other leading and lagging indicators can provide you with a good evidence base to discuss with your assessor.

**ISO45001 identifies benchmarking as an opportunity** to improve the OH&S management system, including looking at the organisation's own past performance, and to that of others. The SCT provides such data; allowing organisations to compare their safety culture over time as well as to others undergoing the same process, both generally and **industry specific**.

You should now have some ideas about what you need to do to prepare your organisation. Regardless whether you choose to adopt any of the standards mentioned in this paper, your ultimate goal should always be to improve your safety culture.

***'Remember, it is the quality of health and safety leadership, worker engagement and participation that makes the difference between being compliant and aiming for higher standards, beyond compliance'.***

<sup>2</sup> Details of the ASCENT model can be found at <http://www.hsl.gov.uk/what-we-do/safety-culture-stages>

## References

- 1 ISO 45001 Whitepaper: An update on the latest developments of the new International Standard for Occupational Health and Safety Management Systems, Approaching change, BSI (No date). Available from: <http://www.bsigroup.com/LocalFiles/en-GB/iso-45001/Resources/Whitepaper-Update-on-the-latest-developments-of-ISO-45001-FINAL-Dec-2014.pdf> Accessed 30th November 2015.
- 2 The International Register of Certification Auditors (IRCA), Part of: The Chartered Quality Institute. BS OHSAS 18001 - Moving to ISO 45001, 2014. Available from: [http://www.irca.org/Documents/IRCA/ISO\\_CD\\_45001\\_Briefing\\_note.pdf](http://www.irca.org/Documents/IRCA/ISO_CD_45001_Briefing_note.pdf) [Accessed 30th November 2015].
- 3 Health and Safety Executive. *Plan, Do, Check, Act. An introduction to managing for health and safety.* (HSG 275). HSE Books; 12/13. ISBN 978 0 7176 6604 1 Available from: <http://www.hse.gov.uk/pubns/indg275.pdf> [Accessed 11th December 2015].
- 4 Health and Safety Executive. *Managing for health and safety* (HSG65). HSE Books; 2013. Available from: <http://www.hse.gov.uk/pubns/priced/hsg65.pdf> Accessed 11th December 2015.
- 5 Dodsworth, M., Connelly, K. E., Ellett, C. J., Sharratt, P. Organizational climate metrics as safety, health and environment performance indicators and an aid to relative risk ranking within industry. *Process Safety and Environmental Protection*. 2007; 85: 59-69. Available from: <http://dx.doi.org/10.1205/psep06006> Accessed 30th November 2015.
- 6 Koivupalo, M., Sulasalmi, M., Rodrigo, P., Väyrynen, S. Health and safety management in a changing organisation: Case study global steel company. *Safety Science*. 2015; 74: 28-139. Available from: <http://dx.doi.org/10.1016/j.ssci.2014.12.009> Accessed 30th November 2015.
- 7 British Standards Institution. *Occupational health and safety management systems – Requirements*. London: BSI; 2007.
- 8 Abad, J., Lafuente, E., Vilajosana, J. An assessment of the OHSAS 18001 certification process: Objective drivers and consequences on safety performance and labour productivity. *Safety Science*. 2013; 60: 47-56. Available from: <http://dx.doi.org/10.1016/j.ssci.2013.06.011> Accessed 30th November 2015.
- 9 Bird, K. *First Draft of ISO's Occupational Health and Safety Standard*. ISO; 2014. Available from: [http://www.iso.org/iso/hom/news\\_index/news\\_archive/news.htm?refid=Ref1874](http://www.iso.org/iso/hom/news_index/news_archive/news.htm?refid=Ref1874). Accessed 11th December 2015.
- 10 Fernandez-Muniz, B., Montes-Peon, J. M., Vazquez-Ordas, C.J. Safety climate in OHSAS 18001- certified organisations: Antecedents and consequences of safety behaviour. *Accident Analysis and Prevention*. 2012. 45:745-758. Available from: <http://dx.doi.org/10.1016/j.aap.2011.10.002> Accessed 30th November 2015.
- 11 Hinze, J., Thurman, S., Wehle, A. Leading indicators of construction safety performance. *Safety Science*. 2013; 51: 23-28. Available from: <http://dx.doi.org/10.1016/j.ssci.20012.05.016> Accessed 30th November 2015.



12 Sinelnikov, S., Inouye, J., Kerper, S. Using leading indicators to measure occupational health and safety performance. *Safety Science*. 2015; 72: 240-248.

Available from:

<http://dx.doi.org/10.1016/j.ssci.2014.09.010>

Accessed 11th December 2015.

13 Mearns, K. From reactive to proactive - Can LPIs deliver? *Safety Science*. 2008; 47: 491-492.

Available from:

<http://dx.doi.org/10.1016/j.ssci.2008.07.028>

Accessed 30th November 2015.

14 Grabowski, M., Ayyalasomayajula, P., Merrick, J., Harrauld, J. R., Roberts, K. Leading indicators of safety in virtual organizations. *Safety Science*. 2007; 45(10): 1013-1043.

Available from:

<http://dx.doi.org/10.1016/j.ssci.2006.09.007>

Accessed 30th November 2015.

15 Mengolinim, A., Debarberis, L. Effectiveness evaluation methodology for safety processes to enhance organizational culture in hazardous installations. *Journal of Hazardous Materials*. 2008; 155: 243-252.

Available from:

<http://dx.doi.org/10.1016/j.jhazmat.2007.11.078>

Accessed 30th November 2015].

16 Zohar, D. Thirty years of safety climate research: Reflections and future directions *Accident Analysis and Prevention*. 2010; 42: 1517-1522.

Available from:

<http://dx.doi.org/10.1016/j.aap.2009.12.019>

Accessed 30th November 2015.

17 Payne, S. C., Bergman, M. E., Beus, J. M., Rodriguez, J. M., Hening, J. B. Safety climate: Leading or lagging indicator of safety outcomes: *Journal of Loss Prevention in the Process Industries*. 2009; 22: 735-739.

Available from:

<http://dx.doi.org/10.1016/j.jlp.2009.07.017>

Accessed 30th November 2015.

18 Beus, J. M., Payne, S. C., Begman, M. E., Arthur Jr., W. Safety Climate and Injuries: An Examination of Theoretical and Empirical Relationships. *Journal of Applied Psychology*. 2010; 95(4): 713-727.

Available from:

<http://dx.doi.org/10.1037/a0019164>

Accessed 11th December 2015.

19 Yule, S., Flin, R., Murdy, A. The role of management and safety climate in preventing risk-taking at work. *International Journal of Risk Assessment and Management*. 2007; 7(2): 137-151.

Available from:

<http://dx.doi.org/10.1504/IJRAM.2007.011727>

Accessed 11th December 2015.



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