ISO 45001 – Occupational health and safety management system

Workplace safety: Address risks and opportunities for stable and safe operations

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White paper

Abstract

ISO 45001 is an international standard that specifies requirements for an occupational health and safety (OH&S) management system, which is intended to improve the safety and health of both employees and other personnel.

ISO 45001 replaces OHSAS 18001, which is currently used by over 100,000 organisations worldwide, as the primary OH&S standard used internationally. The new standard enables organisations to proactively improve injury prevention and reduce ill-health, while protecting the organisation's longevity. Organisations which currently hold OHSAS 18001 certification now have three years to re-certify, in order to meet the requirements of this new standard.

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Contents

About the TÜV SÜD expert

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Andreas Engelhardt has more than 20 years of consultancy experience in Occupational Health & Safety (OH&S) and associated management standards. A product compliance manager with TÜV SÜD since 2007, he takes an active role within the industry.

Mr Engelhardt is a delegate for a joint working group of CASCO, the ISO committee that works on issues relating to conformity assessment, which reviews competence requirements for auditing and certification of OH&S management standards (ISO/CASCO/JWG 48 - Joint ISO/CASCO - ISO/PC 283 WG: ISO/IEC TS 17021-10 Competence requirements for auditing and certification of occupational health & safety MS). He is also a VdTÜV AK OH&S Member.

OH&S Challenges

The consequences of occupational injuries and diseases worldwide are significant, both for employers and the wider economy - resulting in losses from early retirements, staff absence and rising insurance premiums.

The growing globalisation and fragmentation of supply chains has further augmented the levels of OH&S risk for multinational organisations, as their business functions, and those of their suppliers and customers, cross multiple geographic boundaries. Without the assurance of a robust OH&S across that supply chain, the organisation may be unwittingly exposed to substantial legal, financial and reputational damage.

To further protect and promote workers' health and performance, as well as support OH&S throughout the supply chain, the International Standard Organization (ISO) has introduced ISO 45001, Occupational health and safety management

systems – Requirements. Developed by a committee of occupational health and safety experts, representing 70 countries and prominent international organisations, ISO 45001 follows other generic management system approaches, including ISO 14001 and ISO 9001. This standard is intended to help organisations across the world to develop a framework that improves safety, reduces workplace risks and creates safer working conditions.

Benefits of an OH&S management system

To survive in today's competitive global marketplace, organisations must proactively manage all types of risk to the business, and OH&S is no exception. The consequences of poor OH&S management are far reaching, resulting in loss of experienced people, extended absences, business interruption, legal action and rising insurance premiums. The physical and mental integrity of an organisation's workers

are therefore central to its reputation and commercial performance.

Furthermore, all organisations have both a moral and legal responsibility to ensure the health of their employees by providing them with a safe working environment. This includes either minimising their exposure to hazards, or equipping them with the appropriate understanding and tools to mitigate risk.

Developing a robust OH&S management system should be viewed as an opportunity, rather than a financial and administrative inconvenience. Certification to ISO 45001, delivers a competitive advantage by formally declaring that your organisation takes risk management at all levels seriously. Not only will this positively impact buyer appeal, improved working conditions help an organisation to become more agile, supporting both business growth and competitiveness.

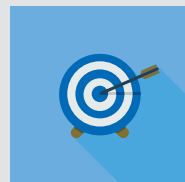## BENEFITS OF AN OH&S MANAGEMENT SYSTEM

Increased protection of the workforce	Enhanced competitiveness	Reduced organisational risk	Excellent market reputation	Improved employee motivation

A new OH&S approach - ISO 45001

Published on 12 March 2018, ISO 45001 marks a significant step in the overall effort to improve occupational health and safety standards worldwide. ISO 45001 supersedes the previous OHSAS 18001 standard, which was first introduced in 1999 and revised in 2007, replacing it as the primary standard used internationally for OH&S management systems. It is the first international standard to provide a comprehensive framework for management systems addressing OH&S issues.

The standard sets out the requirements for an OH&S management system and includes an implementation guide, enabling organisations to proactively improve OH&S performance, as well as provide a safe and healthy working environment that prevents work-related injury and ill health. By providing a comprehensive management system targeted at mitigating negative effects of the physical, mental and cognitive condition of employees, contracted employees, leased personnel and visitors, ISO 45001 also assists an organisation to fulfil its legal requirements.

ISO 45001 is designed to place a proactive and preventative emphasis on risk control factors by identifying and assessing the likelihood of hazards in the workplace. It can be implemented by any size of organisation in any industry, and can be integrated into other health and safety programmes.

Conformance to ISO 45001 safeguards an organisation's stakeholders, such as employees and customers, from as many risks in the working environment as possible. ISO 45001 certification formalises and documents a comprehensive and effectively implemented system, to prove that an organisation has taken appropriate measures to mitigate hazardous situations.

UNDERSTANDING THE ISO 45001 REQUIREMENTS

The first global standard for occupational health and safety, ISO 45001, provides a single, clear framework for improving OH&S performance in a proportionate and proactive way.

THE STANDARD FOCUSSES ON:

The context of the organisation

Responsibility and accountability of management

Health and safety of employees as well as external persons

The importance of a company-wide safety culture

A defined hierarchy of control

Continual improvement

By providing an integrated approach to organisational management, the uniform structure and the use of consistent definitions and terminology make it easier for organisations to pool their certifications within an integrated management system

High level structure

ISO 45001 uses the 'high level structure' (HLS), so that it has a common framework with other management systems, such as ISO 9001 and ISO 14001. By providing an integrated approach to organisational management, the uniform structure and the use of consistent definitions and terminology make it easier for organisations to pool their certifications within an integrated management system. Moreover, the consistent structure facilitates ISO 45001's enhanced clarity and applicability.
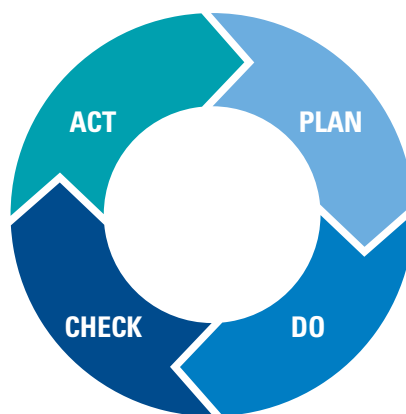
Aligning health and safety in a form which integrates with other management systems, already in operation in more than one-million organisations worldwide, delivers significant cost savings as it improves application, simplifies implementation and eliminates duplication. Organisations will therefore find it much easier to incorporate their OH&S management system into core processes, support processes and management processes, while

encouraging senior management to become more involved.

Plan-Do-Check-Act

The Plan-Do-Check-Act (PDCA) cycle is outlined in ISO 45001 and will help organisations to continually improve performance, as it can be applied to individual processes and to the OH&S management system as a whole:

PDCA cycle

Establish OH&S objectives and processes that support the organisation's OH&S policy

Do

Implement the relevant OH&S processes as planned
Eliminate hazards and reduce OH&S risks
Prepare for and respond to potential emergency situations

Check

Monitor and measure activities and processes against the OH&S policy and report the results
Evaluate compliance
Review the organisation's OH&S management system

Act

Take actions to continually improve the OH&S performance to achieve the intended outcomes
Report, investigate and take action, to determine and manage incidents and nonconformities

Plan

Determine and assess OH&S risks and opportunities, alongside other risks and opportunities

Requirements

The ISO 45001 requirements are described in the sections 4 – 10 of the standard and follows the PDCA cycle.
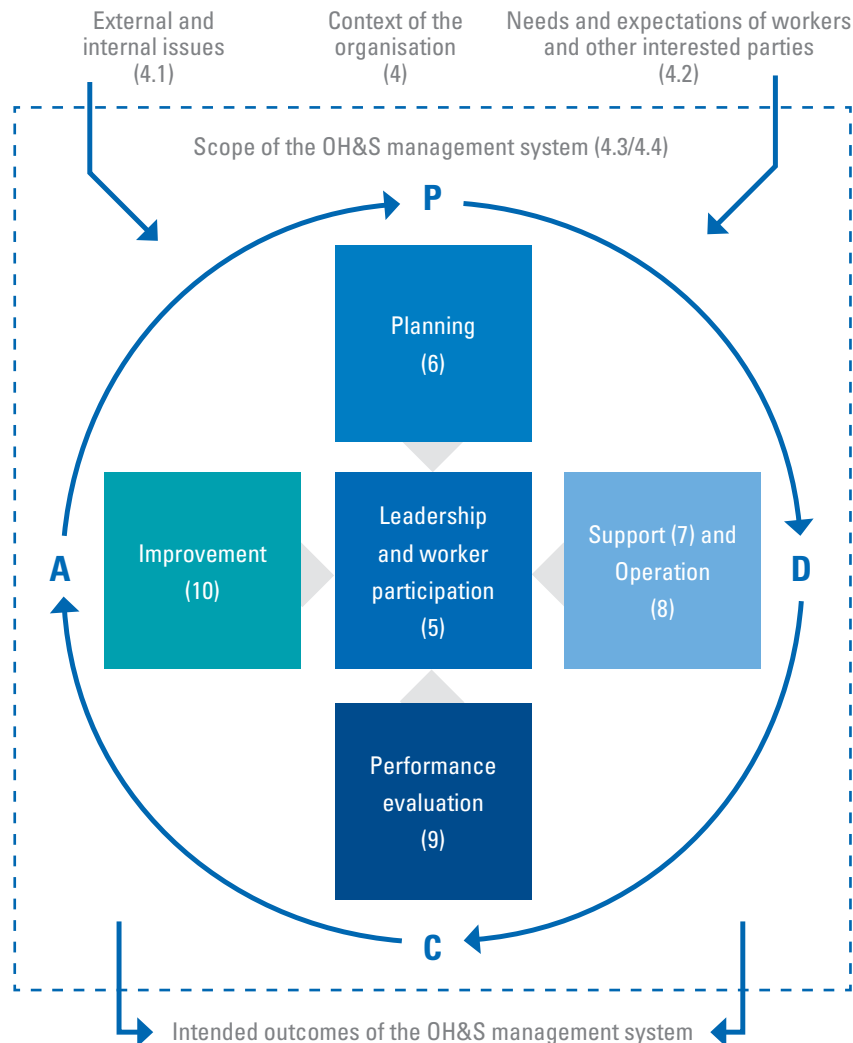
Clause 4 – Context of the organisation

ISO 45001 requires the organisation to identify the external and internal issues that will have an impact on the intended outcomes of the OH&S management system. This includes understanding the needs and expectations of both workers and other interested parties. The term 'workers' means personnel performing work or work-related activities that are under the control of the organisation – not just employees. At this stage, the scope of the OH&S management system must be agreed so that its boundaries are clear in terms of how far the system will apply, for example if it is part of a larger parent organisation.

Clause 5 - Leadership and worker participation

This relates to the involvement of top management and how they are required to demonstrate leadership and commitment to the organisation's OH&S management system. It lists 13 specific requirements, including having overall accountability for the protection of workers, and spearheading a culture that supports the OH&S management system, which in itself must be compatible with the strategic direction of the organisation. A key requirement for an organisation is to establish, implement and maintain an OH&S policy. The consultation and participation of workers is also required.

RELATIONSHIP BETWEEN PDCA AND THE ISO 45001 FRAMEWORK

ISO 45001 incorporates the PDCA concept into a new framework and includes the above illustration of the relationship between PDCA and the Standard's framework.

External and internal issues (4.1) Context of the organisation (4) Needs and expectations of workers and other interested parties (4.2)

Scope of the OH&S management system (4.3/4.4)

P

Planning (6)

A Improvement (10) Leadership and worker participation (5) Support (7) and Operation (8) D

Performance evaluation (9)

C

Intended outcomes of the OH&S management system

Source: ISO 45001 - Occupational health and safety management systems

Clause 6 – Planning

ISO 45001 introduces greater emphasis on ensuring that the planning phase is considered alongside the outputs of the work done against Clause 4. The first part of Clause 6 covers action that should be taken to identify and address hazards, risks and opportunities. The second part looks more specifically at how planning should be implemented to accomplish OH&S objectives. This will ensure that the OH&S management system can achieve its intended outcomes, as well as prevent and reduce undesired effects. It should also be used to ensure that the organisation achieves continual improvement. Furthermore, legal requirements and other requirements have to be determined. Action shall be planned, to address risks and opportunities, legal and other requirements as well as preparation and response to emergency situations.

Clause 7 – Support

This section of ISO 45001 lays out the requirements for ensuring that the OH&S plan is actioned by competent people, being supported by the appropriate level of resource (financial and infrastructure). There is a requirement to retain evidence of workers' competence in terms of how it could impact OH&S performance, while ensuring appropriate education and training, as well as awareness raising about OH&S issues.

A communication process must make workers aware of the OH&S policy and the hazards, alongside risks that relate to them. It must also have a process for communicating information relevant to the OH&S management system, both internally and externally. Documented evidence of these practices is also required, referred to as 'documented information', which are similar to those set out in OHSAS 18001 for the control of documents and records.

Clause 8 – Operation

This clause covers how plans and processes, as outlined in the previous clauses, should be executed. This includes processes that eliminate hazards and reduce OH&S risks using the standard's "hierarchy of controls". This clause also includes managing change, procurement processes and preparedness for responding to emergency situations. Procurement activities must also cover the control of contractors, as well as outsourced processes and activities.
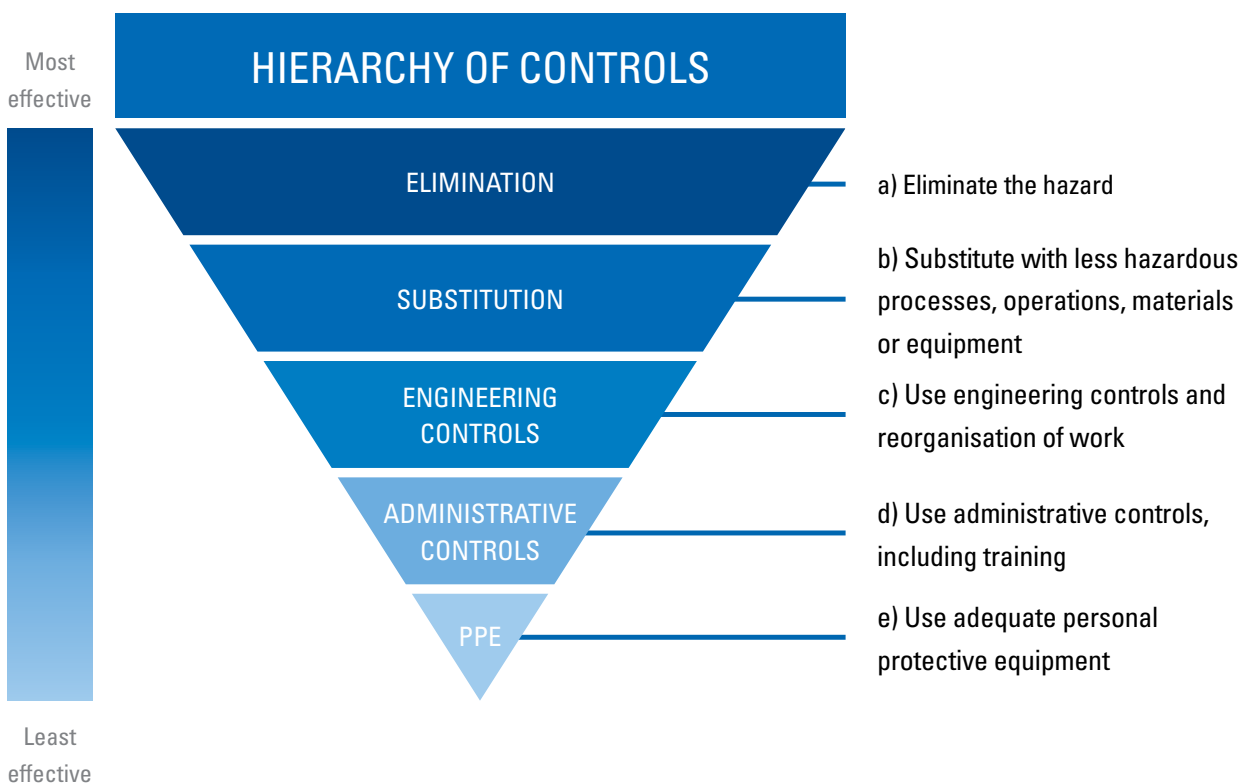
Clause 9 – Performance evaluation

Organisations must ascertain what must be measured and monitored, by whom and with what frequency, to give an indication of how the OH&S management system is performing. Once again, documented evidence pertaining to this must be retained.

Top management is responsible for reviewing the organisation's OH&S management system.

Clause 10 – Improvement

This clause covers how the organisation must identify opportunities for improvement and take action to support the intended outcomes of the OH&S management system. Emphasis is given to the reporting and investigating of incidents, accidents and nonconformities. A change from OHSAS 18001 is that ISO 45001 contains detailed corrective action requirements. This includes taking action to correct incidents or nonconformities, and determining whether similar incidents or nonconformities have the potential to occur elsewhere in the organisation, as well as taking the appropriate corrective actions.

HIERARCHY OF CONTROLS

Most effective

ELIMINATION — a) Eliminate the hazard

SUBSTITUTION — b) Substitute with less hazardous processes, operations, materials or equipment

ENGINEERING CONTROLS — c) Use engineering controls and reorganisation of work

ADMINISTRATIVE CONTROLS — d) Use administrative controls, including training

PPE — e) Use adequate personal protective equipment

Least effective

ISO 45001 vs OHSAS 18001

Even though ISO 45001 constitutes a fully new standard, its foundations already exist and are formulated in OHSAS 18001. Companies that have already implemented an occupational health and safety management system in accordance with OHSAS 18001, and actively apply it in everyday company practice, can therefore expect a smooth transition to ISO 45001.

Nevertheless, there are some fundamental differences. While OHSAS 18001 focused on managing internal issues and OH&S hazards, the ISO 45001 is based on the interaction between the organisation and its external business environment. Furthermore, ISO 45001 includes the consideration of opportunities, as opposed to the purely risk-based thinking of OHSAS 18001. On an overall level, the perception of OH&S has shifted from procedure-based to process-based thinking, thereby

recognising workplace safety as a prerequisite for the long-term success of any organisation.

Those already compliant with OHSAS 18001 will need to start making the transition to ISO 45001, as OHSAS 18001 certification will cease to be valid in March 2021. For organisations certified to OHSAS 18001:2007, migration activities can be conducted during a routine surveillance, recertification audit or a special audit.

How to get started

The success of an OH&S management system largely relies on the commitment of the organisation's top management. Once your organisation has that, it is ready to start the ISO 45001 implementation process.

Before a certification audit can take place, your organisation will need to implement the management system and document its effectiveness and compliance to the standard requirements, through the steps as

shown in the illustration below.

When the management system has matured sufficiently and its effect can be thoroughly proven, the certification process can be initiated.

PREPARE FOR A SMOOTH CERTIFICATION PROCESS

UPSKILLING
Become familiar with ISO 45001 objectives and requirements

GAP ANALYSIS
Identify gaps against ISO 45001 requirements

IMPLEMENTATION
Outline and implement measures to comply with ISO 45001 requirements

DOCUMENTATION
Record measures and key performance indicators to document effectiveness and compliance

Third-party certification by TÜV SÜD

We can provide you with our TÜV SÜD certification mark, which is globally recognised and synonymous with quality and safety.

An internationally accredited Certification Body, TÜV SÜD provides the expertise and experience to assess your organisation to the requirements of ISO 45001 and other management system standards.

During a certification process, TÜV SÜD's independent and qualified auditors apply the following techniques:

Document review: evaluation of the organisation's requirements and/or documentation to ensure the systematic control of all processes relevant to ISO 45001.

On-site-audit: verification, in the form of interviews and on-site inspection at the customer's premises, that the requirements of ISO 45001 are being implemented effectively. This includes checking processes based on records kept by the organisation, such as available measurement results, minutes of meetings, training and qualification records, complaints management and records, and the resulting improvement projects instigated by the organisation.

In addition to offering comprehensive evaluations and reports, we can provide you with our TÜV SÜD certification mark, which is globally recognised and synonymous with quality and safety.

GET YOUR ISO 45001 CERTIFICATION

DOCUMENTATION REVIEW AUDIT
TÜV SÜD evaluates your documentation and company records

ON-SITE AUDIT
TÜV SÜD reviews the compliance of your actual activities to standard requirements and company records.

CLOSING THE GAP
Your organisation identifies and implements measures to correct the root cause of any non-conformances identified by the audit.

CERTIFICATION ISSUANCE
TÜV SÜD issues the ISO 45001 certification and certification mark

SURVEILLANCE AUDITS
Annual audit required to maintain certification validity (Unannounced audits may occur in special cases)

Why choose TÜV SÜD?

TÜV SÜD is an internationally accredited certification body, so you can be assured that we conduct certifications with the highest degree of professionalism and conformance to international guidelines and standards. TÜV SÜD's experts hold various international and national accreditations to satisfy local requirements for combined auditing exercises. In addition, our auditors are required to follow a strict code of conduct through Auditor Codex, which assures both you and your customers of our complete independence and professionalism.

Our international network enables us to offer certification and auditor engagement services on every continent, certifying organisations' compliance to ISO 45001 on a global scale. Furthermore, TÜV SÜD has the broad sector expertise required to help organisations from various industries in different geographical locations to achieve compliance.

Internationally accredited Certification Body for a wide range of management system standards

Facilitates safe and secure business operations across industries

Globally recognised TÜV SÜD certification mark

Available in all key regions across the world

Conclusion

Organisations worldwide recognise the commercial and strategic benefits of using ISO 45001 to control and improve health and safety performance. OH&S management systems give the organisation a globally-recognised structure to practice responsible risk control, and continually improve safety and health performance that protects the workforce.

By emphasising a proactive approach to risk-control, ISO 45001 gives the organisation greater control to significantly improve OH&S performance. Compliance with ISO 45001 will help your organisation to reduce direct and indirect costs, while preventing injuries in the workplace. It is therefore an essential management system for your business.

With organisations under increasing scrutiny from stakeholders, ISO 45001 certification demonstrates a strategic commitment to continuous improvement of OH&S, improving staff morale, minimising costs and strengthening market reputation. Third-party certfication against the requirements of the standard, is a strong signal to both your internal and external stakeholders that your organisation is committed to safe and secure business operations.

> Compliance with ISO 45001 will help your organisation to reduce direct and indirect costs, while preventing injuries in the workplace.

Demonstrate commitment to continuous improvement with ISO 45001 certification

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Add value. Inspire trust.

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, and auditing services. Since 1866, the company has remained committed to its purpose of enabling progress by protecting people, the environment and assets from technology-related risks. Through more than 24,000 employees across over 1,000 locations, it adds value to customers and partners by enabling market access and managing risks. By anticipating technological developments and facilitating change, TÜV SÜD inspires trust in a physical and digital world to create a safer and more sustainable future.