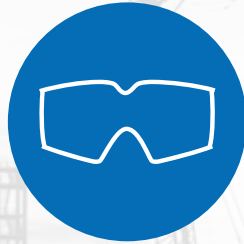




ISO 45001:2018

OCCUPATIONAL HEALTH & SAFETY IMPLEMENTATION GUIDE



50,000
CERTIFICATES
GLOBALLY 

 100%
TRANSPARENT
— FEES —

1000+
EMPLOYEES
WORLDWIDE 

AVERAGE
CUSTOMER
PARTNERSHIP 

OVER 90 OPERATING
COUNTRIES



> ISO 45001:2018

OCCUPATIONAL HEALTH & SAFETY IMPLEMENTATION GUIDE

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INTRODUCTION TO THE STANDARD

ISO 45001:2018 is a new International standard which provides a framework, regardless of size, activity and geographical location, to manage and continuously improve Occupational Health and Safety (OH&S) within the organization.

The risk-based approach standard introduces the common 'Annex SL' structure which provides compatibility with other ISO standards including ISO 9001 Quality, ISO 14001 Environment and ISO 27001 Information Security management systems.

By adopting a systematic approach including worker participation, the organization can integrate OH&S within its business processes which will contribute

to prevention of accidents and long and short term ill health effects. The standard provides a platform to develop a positive safety culture leading to worker wellbeing.

Once the policy framework has been put in place, along with processes to facilitate the organization's commitment, the standard then asks the organization to audit, review and improve the system including assessment of compliance obligations. This approach provides the organization with both assurance and business continuity.

Standard requirements can significantly help the organization improve internally; by embedding a culture of challenge and continual improvement.





A Brief history of ISO 45001

OHSAS 18001:2007 (initial version OHSAS 18001:1999) is the predecessor to the recently released ISO standard ISO 45001:2018. The OHSAS standard was recognised internationally but it is not an ISO standard.

Over time it has become increasingly apparent that too many workers are suffering from OHS related illnesses, injuries and deaths, placing an unacceptable burden on people, their families and with moral and welfare costs to society overall.

This was recognised and hence the need to have a systematic structure for the management of the activities. ISO 45001:2018 is an ISO standard and has been designed to have greater compatibility with existing ISO standard management system revisions including ISO 9001:2015 and ISO 14001:2015.

It uses the same management system structure and reflects the requirements identified by the International Labour Organization guidance for OHS systems. It has been developed over a number of years by International bodies and industry experts.

Owing to this compatibility ISO 45001:2018 should build on all the success of OHSAS 18001 and allow the benefits to be enhanced and potentially integrated in other generic management system standards.

In 2021 OHSAS 18001 will be withdrawn leaving ISO 45001 the primary international OHS management system standard.

BENEFITS OF IMPLEMENTATION

With or without a formal OH&S management system, organizations have a moral and legal duty to protect workers from accidents and ill health. This next section provides an overview of a selection of positive benefits from implementation of ISO 45001. These positive benefits are not exhaustive.



Adoption of the high-level structure of 'Annex SL' enables organizations to integrate ISO 45001 with existing ISO 9001 Quality and ISO14001 Environmental management systems. This approach has reduced the complexity of multiple clause requirements across different standards applications, saving time and resources.



In addition to internal process controls, the standard has provided requirements to assess procurement of products and services which may have influences on OH&S. For example, risk based structured management of contractors. Such a process can in-turn provide controls to reduce both OH&S risk, promote positive safety culture and protect business.



The standard provides a systematic approach for senior leadership to assess OH&S risk and opportunities, monitor and review safety performance and set objectives for continual improvement within the 'context' of organizational activities. This may include, for example, worker health promotion campaigns or the monitoring of the OH&S effects of products and services provided.



The standard provides a structure to monitor and review compliance obligations to ensure the organization is legally compliant including products and services. It is important for an organization to understand what it is to achieve, why it needs to achieve and if it has achieved – this should be demonstrated within the system.



Implementation is a demonstration and commitment from senior leadership to internal and external stakeholders (interested parties) of the intent to protect workers from accidents including short and long term ill health effects. Of course, this may in-turn reduce downtime, lead to reduction or prevention of worker loss time hours and potential prosecution.



Both internal and external audit programmes provide scrutiny and effectiveness of the OH&S management system including processes. The programme promotes communication and participation of workers with identification of gaps leading to continuous improvement.



This commitment also provides assurances to the Board of Directors, Trustees or owners that management controls regarding OH&S risks inherent within the organization.



With an emphasis on workers taking an active role in OH&S matters, this can have positive benefits on an organization's reputation as a safe place to work leading to staff retention, motivation and greater productivity.



The standard promotes worker participation when identifying hazards, elimination or reducing risk by implementation of controls integrated with other business process. This approach can improve safety culture, minimise risk and embed best practice resulting in increased productivity.



Implementation is also recognition for having achieved an international standard benchmark which may have positive influence on existing and potential customers in fulfilling their own social responsibility commitments.

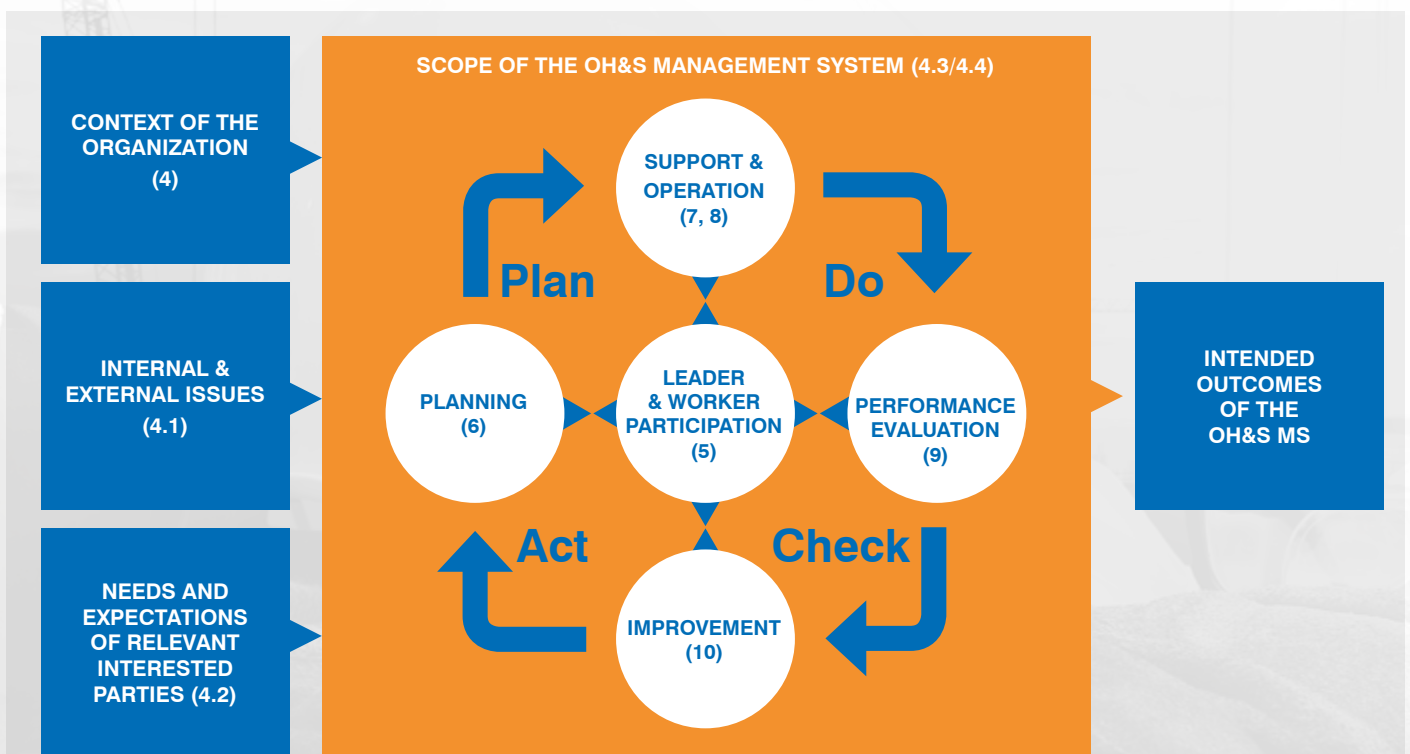
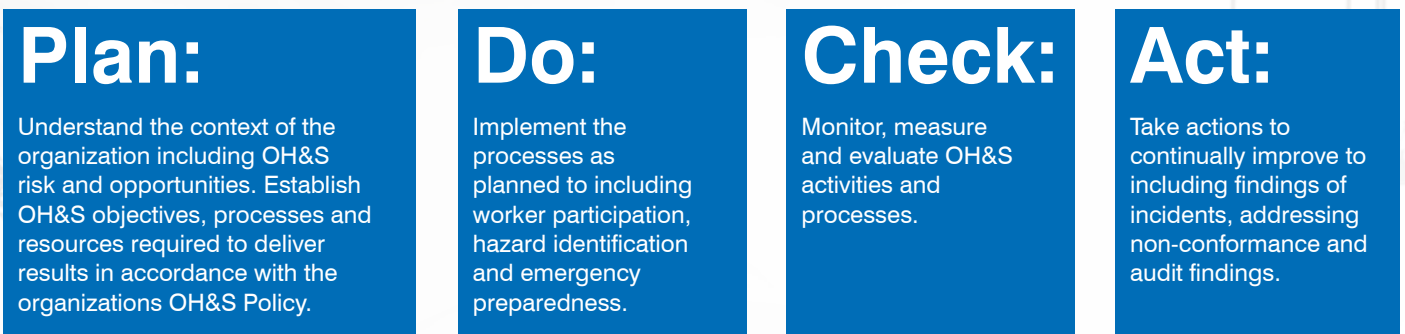
For further information on positive benefits of ISO 45001 standard implementation and its intended outcome refer to section 1 'Scope'.

PDCA CYCLE

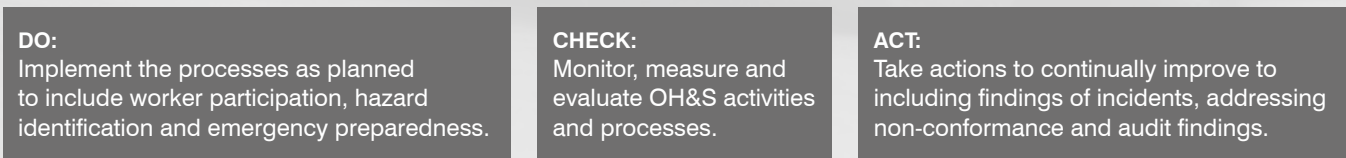
ISO 45001 has adopted the four stage Plan-Do-Check-Act (PDCA) cycle for achieving continual improvement. This is an inherent part of the systematic approach to determine workable solutions, assessing the results, and implementing ones that have been shown to work.

The PDCA cycle can be applied not only to management systems as a whole, but also to each individual element to provide an ongoing focus on continual improvement. At the core of each stage is 'Top Management' who are pivotal to ensure the OH&S system is managed effectively.

In the context of ISO 45001, refer to the following PDCA cycle:



Establish OH&S objectives, processes and resources required to deliver results in accordance with the organizations OH&S Policy



RISK BASED THINKING/AUDITS

Any company that operates an OH&S management system must ensure there are effective measures to evaluate performance which enables continual improvement internally. This section outlines the different methodologies of auditing in relation to the OH&S system to ensure it is effective at all levels of the organization and meets the requirements of the standard.

Risk Based Thinking

Risk Based Thinking (RBT) is a central tenet of ISO 45001. RBT requires the Management Team to continually assess the issues that affect OH&S aspects of an organization and ensure that appropriate targets, resources and controls are in place. RBT empowers organizations to make dynamic changes to their objectives and focus, whilst at the same time ensuring that resources are in place to control changes and unforeseen circumstances. In relation to OH&S, risk-based thinking extends to areas outside of the organization which may influence safety.

For example, procurement of products and services (including contractors) and the impact of supplied products and services. The organization must determine the methodology for risk-based thinking with consideration of compliance obligations and the participation of workers. For operational aspects the standard clearly defines the hierarchy of control for hazard identification and the reduction of risks with the involvement of workers. This methodology requires the organization to reduce risks associated with hazards to a reasonably practicable level.

1st Party - Internal Audit

Internal audits are taken at a moment in time to determine if policies and practices are effective and achieving the intended aim. The internal audit is an opportunity to engage with workers and to capture a true reflection of processes. Audits may identify positive evidence of conformity including compliance obligations, however through inspection and observation they may identify improvement opportunities and non-compliance in breach of the management standard.

Audit Planning

Developing an audit plan does not have to be a complicated process. Through risk based thinking a series of audits can be scheduled to focus areas of higher risk and to engage with identified groups of workers. It's up to the organization to determine the frequency provided it is defined. In addition to operational aspects the plan will cover core processes including compliance obligations, management review and documented information.

Walk Through Audits

A less formal approach maybe adopted in addition to the audit plan by conducting 'walk through' audits. This may be conducted by senior leadership or at operational level to inspect areas of the organization to pre-determined questions. This is a further opportunity to engage with workers, promote communication and build a positive safety culture within the organization.

2nd Party - External Audits

Second party audits are usually conducted by customers or organizations on their behalf, however they may be conducted by regulators to ensure the organization complies with legal requirements. External audits are a useful way to substantiate an organization OH&S claim and to gather first-hand information and contact with workers prior to commitment to a formal business relationship. Second party audits may be planned; however, notice may not be provided from regulators emphasising the requirement to ensure OH&S organizational requirements are prepared.

3rd Party - Certification Audits

Third party audits are conducted by UKAS accredited certification bodies such as NQA in compliance of the ISO 45001 OH&S standard. Depending on the number of employees, sites, risk and complexity of the organization, the certification body will determine the number of audit days required to cover the full scope of the standard. Prior to certification, the organization may consider a gap analysis conducted by either consultant or certification body to identify gaps against the OH&S standard.

Certification is a demonstration to interested parties including workers, customers and regulators that there is:

- A mechanism for regular assessment to monitor and implement compliance obligations
- Regular assessment to monitor and improve OH&S processes
- Identification of hazards and reduce OH&S risk
- Regular review and assessment of OH&S risk and opportunities
- Worker participation in the decision-making process to ensure a safe working environment, continuous improvement and safety culture

ANNEX SL

Prior to the introduction of Annex SL (previously known as ISO Guide 83), organizations who implemented ISO 9001 Quality, ISO 14001 Environmental and ISO 27001 Information Security standards had difficulty integrating management systems. Based on different clause structures and terms of definition, the absence of Annex SL could lead to potential gaps between management systems an unnecessary burden on resources. The introduction of Annex SL including ISO 45001 has enabled multiple standards to adopt the same high-level structure to harmonise 10 core clauses, making it easier to integrate common management standards.

High Level Structure

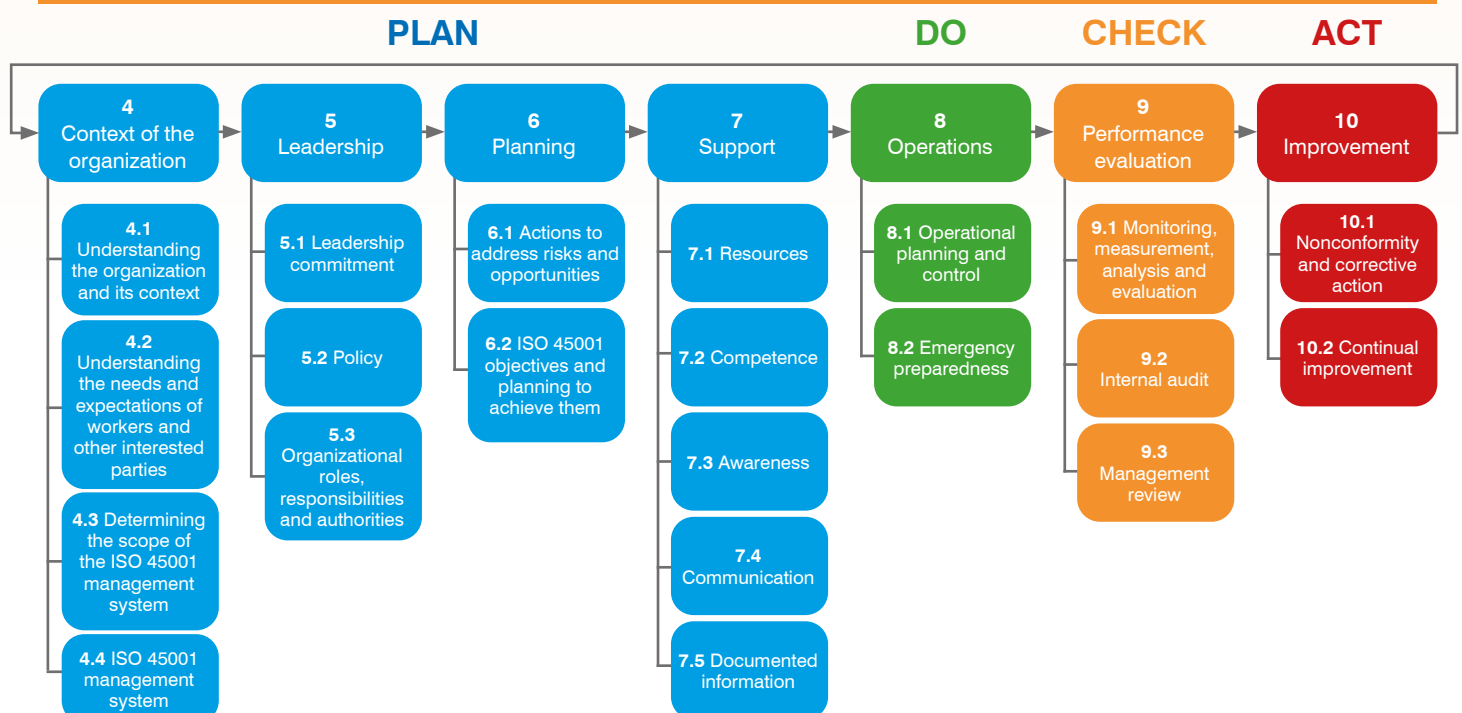
Annex SL consists of 10 core clauses:

1. **Scope**
2. **Normative references**
3. **Terms of definition**
4. **Context of organization**
5. **Leadership**
6. **Planning**
7. **Support**
8. **Emergency preparedness**
9. **Performance evaluation**
10. **Improvement**

The first three clauses provide a background to the standard with useful information including terms of definition. The rationale of 'Context of the Organization' (clause 4) is that the system focuses on processes and requirements needed to achieve organizational policy objectives. This is achieved by understanding the organization and the context in which it operates. The Clause sets out the requirements for the organization to define the 'Scope' of the system, and the subsequent planning of the system.

Clause 5 to 10 are common to all management system standards, ISO 45001 specifically relates to occupational health and safety issues. So, whilst there is commonality, there are OH&S processes to be established, implemented and maintained including understanding of the policy framework, identification of hazards, management control of risks and worker participation. A successfully deployed Annex SL enables an integrated management system (IMS) which simultaneously handles the requirements of ISO 45001, ISO 9001 and ISO 14001. Typically, this would include a harmonised documented information, procurement, audit and management review process without the necessity of duplication.

Annex SL Clause Overview



SECTION 1: SCOPE

For registration all clause requirements must be applied. This section sets the intent and parameters within which the ISO 45001 OH&S management standard can be used to attain its intended outcome.

The intended outcome of the OH&S management system is for the organization to:

- Provide a safe and healthy workplace(s)
- Prevent work related injury and / or ill health
- Proactively monitor and improve OH&S performance
- Eliminate hazards and minimise OH&S risks (including system deficiencies)
- Take advantage of OH&S opportunities and address management system non-conformities associated with its activities
- Fulfil legal and other requirements
- Achieve OH&S objectives
- Integrate other aspects of health and safety including worker wellness / wellbeing

This section makes it clear that the standard does not address issues such as product safety, property damage or environmental impacts beyond the risks they present to workers and other relevant interested parties.

SECTION 2: NORMATIVE REFERENCES

Reference to 'normative references' are common across all management system standards however in the case of ISO 45001 there are no normative references.

If applicable to a standard, normative references are essential documents used for the application of the document. In other words, the reference document is considered essential for the application of the referenced standard.

ISO 45001 provides a bibliography with further information including associated ISO management standards.



SECTION 3: TERMS AND DEFINITIONS

ISO standards are written in such a way that their meaning can be open to interpretation. As with all standards, this interpretation can lead to confusion. To assist the user section 3 of the standard provides prescriptive terms of definition to prevent the wrong interpretation.

It is highly recommended that persons responsible for implementation of the standard clarify and have a clear understanding of words described in this section.

For example, 'worker' may be interpreted without guidance as an operator who works in a factory, when in reality a worker covers many different occupational aspects including agency, contractors, all employees including Top Management and external provider staff.

Each term is listed in accordance with the hierarchy of concepts reflecting the sequencing of the introduction of the standard.

In addition to the term or definition, notes provide further information and clarity.

If an electronic version of the standard has been purchased the definitions are hyperlinked to other definitions so that their interrelationships can be seen.

Annex A Guidance

'Annex A' of the standard provides useful clarification of selected concepts in relation to OH&S to avoid misunderstanding. Concepts including:

- **Continual**
- **Ensure**
- **Interested party**
- **Documented information**

If the organization requires the use of specific industry related terms and their meanings relative to the OH&S system, these terms can be used, however they must still conform to the ISO 45001 document.



WORK SAFETY

SECTION 4: CONTEXT OF THE ORGANIZATION

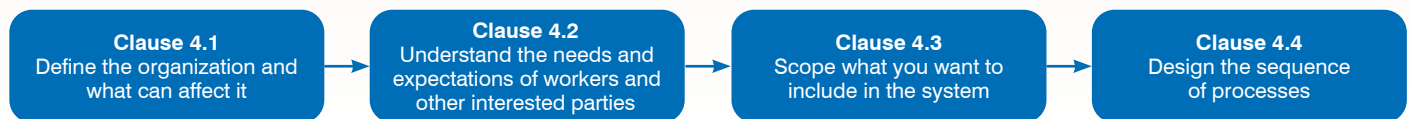
The rationale of this clause is that the system focuses on the processes and requirements needed to achieve the OH&S policy objectives. This can be achieved by understanding the organization and the 'context' in which it operates. Clause 4 also sets out the requirements for the 'Scope' and the system to be defined, and the subsequent high-level planning of the system to achieve the objectives.

Understanding the context of the organization is usually conducted by senior leadership with information about the business and activities gathered at every level of the organization. Discussion points focus on internal and external issues which have an impact on the OH&S system.

Clause 4 has four sub-clauses that each set out an element of what is needed to define the Context of the Organization, and to design the OH&S management system.

These four requirements follow a sequence:

- In 4.1: Clarification of the strategic aims of the organization and determine any issues that could affect these aims being achieved.
- In 4.2: Consideration of the interested parties (Stakeholders) including workers to the organization and how they can affect how the organization operates.
- In 4.3: Setting the scope of the OH&S Management System from the information discussed and considered in 4.1 and 4.2
- In 4.4: Laying out a design for the OH&S management system and the high-level planning around it



4.1 Understanding of the organization and context

Clause 4.1 requires the provision of a high-level understanding of key issues that can affect OH&S both positively and negatively within the organization. Using this information will help develop an understanding of internal and external issues and the interaction of activities to help plan and develop controls within the system.

WHAT ARE INTERNAL AND EXTERNAL ISSUES?

Internal and external issues are circumstances, characteristics and changes which can positively or negatively influence the OH&S management system. 'Annex A' of the standard has been developed to provide examples of internal and external issues. Below are typical examples, however each issue will be focused on the individual organization:

External issues

- Cultural, social, political, legal, financial, technological, economic and natural surroundings including the environment in which the organization operates
- Who the competitors are and any contractors, subcontractors, suppliers, partners and providers
- National and international law
- Industry drivers and trends which have influence on the organization
- The organization products and services and their influence on occupational health and safety

Internal issues

- Governance, organizational structure, roles and accountabilities
- Policies, objectives and the strategies in place to achieve them
- Resources (including human), knowledge and competence
- OH&S culture within the organization and the relationship with workers
- Process for the introduction of new products, materials, services, tools, software, premises and equipment
- Working conditions

With the information that is gathered during discussions at all levels of the organization to determine context, it is recommended this information is placed into a report. The benefit of this is it provides a cohesive explanation and a good reference to support present and future business strategy. (For review of context refer to section 9).

4.2 Understanding the needs and expectations of workers and other interested parties

Interested parties can be documented in the form of a map:

'Interested parties' is the preferred term introduced by ISO however commonly referred to as 'Stakeholders'. Unlike other common standards this clause introduces the term 'Workers' which is a broad term as described in section 3 of the standard 'Terms and definitions'.

This section requires the determination of, in addition to workers, interested parties that can influence OH&S positively and negatively. Once it has been decided which interested parties are relevant and significant, their needs and expectations within the OH&S management system should be addressed.

Remember when considering interested parties, some needs and expectations are mandatory and incorporated into law and regulatory requirements therefore must be considered.

Having defined who your Interested Parties are, ISO 45001 requires that you determine their potential and actual effects.



4.3 Determining the scope of the OH&S management system

From the context information gathered in 4.1 and understanding of needs and expectations of workers and interested parties in 4.2 the 'scope' can be developed.

The Scope sets out the areas of the business that are going to be managed in the OH&S Management System.

Usually, this will include the key processes and activities that are engaged in the service or production of goods, including any customer facing activity and post-delivery warranty work.

Where an organization is complex, the scope is used to ring-fence only the activities or locations where the system is being used. This can be referred to as 'boundaries of applicability'. However, areas of the business cannot be excluded from the scope to avoid OH&S processes or evade legal compliance.

When the application to NQA is made to have the system audited for certification, it is necessary to declare the scope in

a statement. This will ensure that they send the correct auditor with experience in your industry sector. For example:

'The Manufacture and Sales of Dishwashers'

Using this example, you can see that the main process is manufacturing which will incorporate many processes including workers, machinery, regulatory requirements, external providers, customers (end users) and competence which will be audited.

4.4 OH&S management system

From the information gathered in 4.1, 4.2 and 4.3 the standard requires the design and integration of processes within the management system to satisfy the requirements of ISO 45001. This may include such processes as design and development, procurement, marketing and manufacturing.

SECTION 5: LEADERSHIP

Critical to the success of the OH&S management system is leadership and commitment from 'Top Management'. The expectation on leaders within an organization is to become champions of the system and provide the necessary resources to protect workers from harm.

This section provides the tone and expectation on senior leadership to take an active part in the OH&S system and generation of a positive health and safety culture within the organization.

The following are examples of how leadership can be demonstrated within the OH&S management system:

- Take overall responsibility and accountability for the prevention of work related injury / ill health, as well as the provision of a safe and healthy work environment
- Facilitating positive culture and continual improvement
- Ensure the OH&S system is integrated within business processes
- Promote communication internally and externally and at all levels (cascading from the top)
- Protect workers from reprisal when reporting incidents, hazards, risk and opportunities
- Provision and support for safety committees

For an external audit the expectation is for senior leadership to be at the heart of the OH&S management system with a clear demonstration of understanding the system.

OH&S Policy

An OH&S Policy is a 'Statement of Intent' or 'Mission Statement' which sets out the framework to manage the Occupational Health and Safety Management System. The OH&S policy is approved by senior leadership and will drive the controls that are in place and the actions that are carried out to improve it.

The standard specifically requires that the OH&S policy should include commitments to:

- Provide a framework for setting objectives
- Provide safe and healthy working conditions for the prevention of work related injury and / or ill health
- Eliminate hazards and reduce OH&S risks
- Continual improvement of the OH&S system
- Consultation and participation of workers and where they exist worker representatives
- Fulfilment of legal and other requirements

Once the OH&S policy has been approved it must be communicated to stakeholders including workers. The policy must be available to interested parties, which will include customers and external providers on request.

In addition, periodically the OH&S policy must be reviewed by senior leadership to ensure it remains applicable to the context of your organization.



Organizational roles, responsibilities and authorities

This section requires the organization to define clear roles, responsibilities and authorities throughout the organization. It is recognised that overall responsibility for the OH&S management system falls to 'Top Management' however individuals must take account of their own health and safety and that of others.

Consider documenting roles, responsibilities and authorities within high-level and localised organizational charts. Individual policies and work instructions may also include responsibility and authority however competence must be considered.

Consultation and participation of workers

A key factor for the success of an OH&S system is to ensure there are clear lines of communication, consultation and participation of workers with sufficient allocation of time and resources. This section requires the development of processes to ensure information that has an impact on OH&S is communicated at all levels of the organization.

This can be achieved in many different ways depending on the scope and scale of your organization.

Here is a selection of suggested methods of promoting consultation and participation of workers:

- Periodic meetings with senior leadership to discuss processes including OH&S issues
- Safety committee with worker representatives (where required)
- Identification and elimination of hazards (risk assessments)
- Development of training Tool Box Talks and presentations (This may include training tools for workers outside of your organization such as visiting contractors)
- Development of Safe Systems of Work and Work Instructions
- Cross communication between sites within the organization
- Near miss reporting schemes with follow up actions including root cause analysis
- Site tours
- Open door policy to talk to a safety or HR representative
- OH&S suggestion boxes
- Communication – Notice boards, newsletters, email, blogs, health promotion campaigns

Once a selection of methods of consultation and participation of workers has been chosen, consider documenting the methodologies within a process. This will enable the organization to periodically check the process within your audit programme to ensure any identified requirements have been fulfilled.



SECTION 6: PLANNING

Planning is one of the key components of any management system. ISO 45001 is based on the 'Plan-Do-Check-Act' cycle, where planning is used to set the actions in motion for how the system will work.

Planning occurs at several points in the framework for OH&S management system. In order to set out the management system planning is required using information gathered in clause 4. At various points in time there will be the need to 'plan' again; this includes the periodic planning for achieving objectives that are set and reviewed, and also in the event of a 'change' which could arise from a planned or unplanned event.

The requirements are to:

- Plan the actions based on risk assessment to manage risks and opportunities in the prevention of undesired effects including work related injury or ill health
- Manage events and continually determine risk and opportunities for both workers and the OH&S system
- Establish and manage objectives
- Plan and manage changes to the system and re-evaluate once change has been made
- Consider relationships and interactions between activities
- Define a methodology for hazard identification
- Define the methodology for identification and management of legal and other requirements
- Understand the knowledge within the organization to manage activities safely

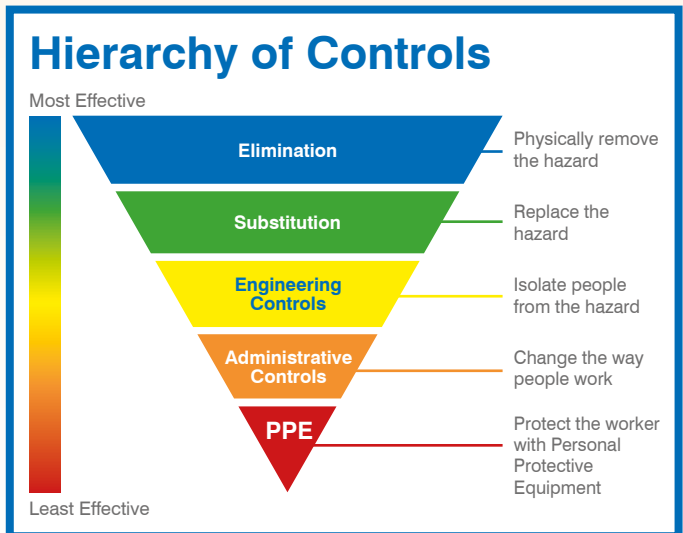
Hazard Identification

Hazard identification is fundamental in the planning process to prioritise actions to address risks and opportunities. Using the 'Hierarchy of Controls' (see illustration opposite) the standard requires the organization to conduct risk assessment based on internal and external activities. Hazard identification will enable the organization to recognise and understand hazards in the workplace. It will also allow workers to assess, prioritise and eliminate hazards or to reduce OH&S risks. Hazards can appear in many different circumstances and conditions including physical, chemical, biological, psychosocial, physiological, mechanical, electrical, or those based on movement and energy.

Consideration must also be given to the types of activity including the following:

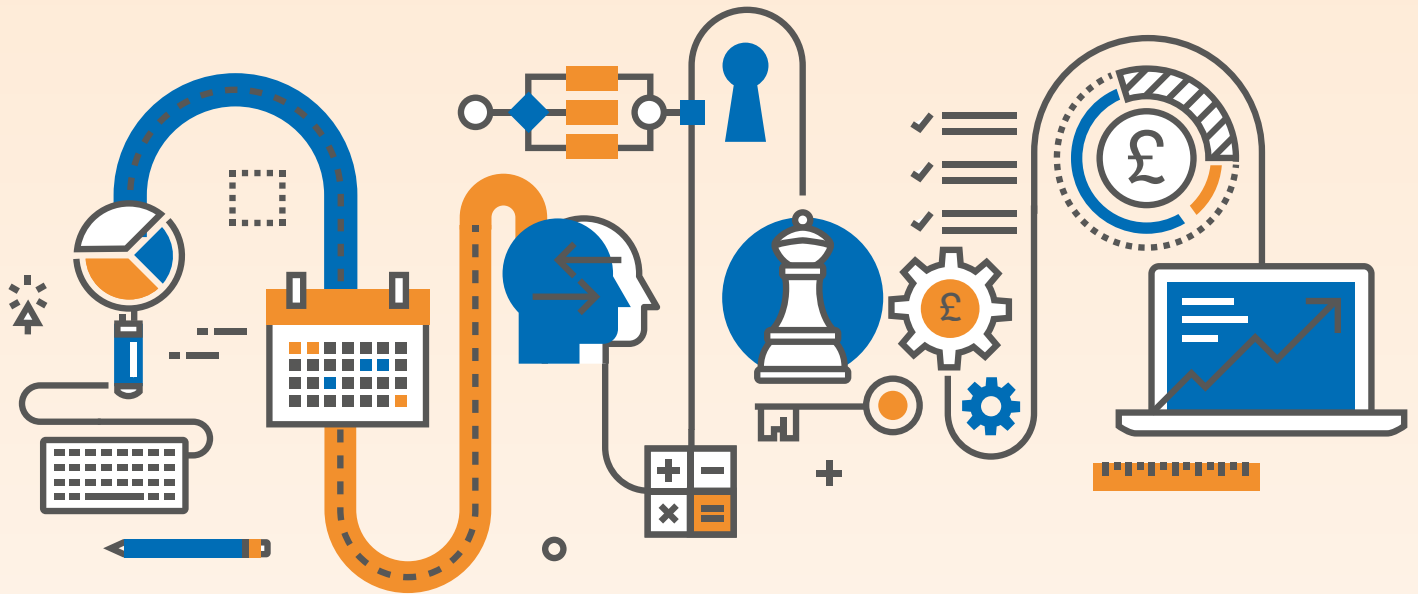
- Groups of workers exposed to the hazard
- Shift work, hours of activity, lone working, supervision
- Human factors including demanding physical activities
- Design of the workplace, for example segregation of traffic and pedestrian routes

- Changes in work pattern including increase or decrease in productivity
- Noise, cold, heat
- Legal requirements and mechanism to adapt to changes in legal requirements
- How the risk assessment will be communicated and subsequent worker training of control measures
- Emergency situations such as unplanned events including fire and loss of power
- Availability of resources to ensure hierarchy of controls can be applied to risk assessment findings



Using the hierarchy of controls, the organization needs to determine the methodology in which the findings are recorded as documented information and communicated to workers and other interested parties. Typically, the competent person would conduct a risk assessment and score the findings based on the likelihood of the event based on the severity of harm with an applied risk score. This methodology would be consistently applied and be based on the legal / regulatory requirement, type and circumstances of the activity, i.e. noise, fire, vibration, height risk assessment etc.

It is recommended that risk assessment conducted by a competent person(s) starts at the design phase of any activity and involves the workers who are or will be directly involved in the process.



Determination of legal and other requirements

The organization needs to be confident that during the risk assessment process it is adhering to the latest applicable legal and other requirements. The legal and other requirements process of assessment will vary depending on the complexity of the business.

Sources of information may be gathered in many ways including:

- Subscription to publisher legal update newsletters
- Membership of trade associations
- Research via reputable government websites
- Use of competent consultants
- Competent employee membership of occupational health and safety institutes
- Employee attendance of occupational health and safety training courses

Following the initial assessment of compliance obligations, the organization may consider placing the relevant information in a document. A spreadsheet may be useful for this purpose.

A live document may include the following information and be referenced within individual risk assessments:

- Name and reference number of regulation / requirement
- Revision status
- Date the regulation was last reviewed
- Competent person responsible for reviewing the requirement
- Area of the organization the requirement impacts including a short description of activity and associated documented information
- A hyperlink or description of the source of information
- Name and customer / external provider contact details if relevant to 'other requirement'
- Next review date

Planning Action

Following the hazard identification process, the organization should plan actions in order of priority to reduce risk. These should consider the consequences of these actions before the actions are introduced. Planning actions and including the

introduction of control measures must be within the framework of the OH&S management system.

Control measures may be either integrated into existing quality system work instructions or based on risk and developed into a dedicated Safe Systems of Work. Tasks may be delegated by senior leadership individually or as a collective group. Tasks will be allocated to persons based on competency with consideration as to how any training will be delivered to different groups of workers.

Objectives

It is a requirement of the standard to set achievable OH&S objectives with the means to periodically measure progress, demonstrating continuous improvement. Often objectives are set and reviewed at management review (see clause 9.3) or locally at departmental or committee meetings. Once set, there must be the means to communicate objectives throughout the organization to support and generate a positive OH&S culture.

If many requirements have been identified the organization may consider developing a documented Occupational Health and Safety Strategic Plan. The plan should be agreed by senior leadership and include risk rating tasks, in order of priority, and the alignment with senior leadership responsible for overseeing the task.

A strategic OH&S plan is a live document and periodically should be reviewed to monitor progress to achieving objectives and continuous improvement.

The document may include:

- Strategic prioritised topic
- Action, this could be conducting assessments according to compliance obligations such as a noise assessment
- Method in which the action can be achieved
- Resources required to achieve the action. For example human, equipment, financial and external provider expertise
- The key performance indicator to demonstrate achievement of the action
- General responsibility
- Top Management responsibility
- Timescale
- Risk rating (order of priority)

SECTION 7: SUPPORT

This section looks at the requirements which underpin the OH&S management system to ensure it runs effectively.

Resources

Resources will be required to fulfil the requirements identified during the planning stages of the system to maintain continuous improvement. These include human, natural, infrastructure (buildings, plant, equipment, utilities, emergency containment systems) technological and financial resources.

It is essential that allocation of resources has the full support from Top Management, under the requirements of Clause 5, to drive the maintenance of a safe and healthy work environment. As part of identifying resources, the organization needs to look at the information produced in Section 6 to acknowledge the risk, opportunities and resulting objectives. They then need to allocate sufficient resources to mitigate or manage them.

Competence

An organization working effectively and efficiently must have competent workers. In terms of OH&S it is essential that workers have access to information and have been suitably trained to prevent accidents or ill health to themselves and others. Competence can include consideration for:

- Capability to fulfil the task based on defined job roles and clear understanding of the required OH&S aspects
- Defined methods of recruitment with consideration for temporary or agency workers
- Awareness of hazards associated with the environment and processes
- Legal requirements
- Individual capabilities including experience, language skills, literacy and diversity

The diversity of activities within the organization will determine the level of training required to fulfil competence. Training gaps are usually identified with the development of new processes, for example the introduction of new machinery or in achieving compliance with regulatory requirements.

No matter how big or small the organization is, training records are essential as reference and evidence of the fulfilment of competence. Consider an overview training matrix identifying fulfilled training gaps including refresher training dates. In addition, consider individual training records with signatory evidence from the worker to acknowledge completion and understanding of training including hazard awareness.

The organization must also consider the competence of external providers including the procurement of contractors conducting tasks on site. The organization's procurement process may provide the structure for management of external providers; including evidence of capability, competence and on site, this may be supported with site induction training.

Either internally or externally, the organization's Top Management must be confident that mechanisms are in place to provide workers with suitable and sufficient competency based OH&S training.

Awareness

Awareness of the requirements of the OH&S system is critical to both internal and external workers. There must be a clear understanding of the organization's H&S Policy including the requirement for individuals to protect themselves and others from exposure to hazards. Awareness training starts before work commencement for both internal and external workers and may include:

- OH&S Policy and requirements
- Hazards associated with the environment and processes
- Means to report incidents and receive information following investigation
- Means to report near misses or safety critical defects
- Structure of supervision
- Provision of information including Safe Systems of Work or Work Instructions
- Clear understanding that there are no recriminations for reporting hazards or precautionary removal of individuals from exposure to harm which is life threatening. This must be actively encouraged as part of a positive safety culture

It is recommended there is evidence of awareness training. This is outlined within the 'competence' section of Section 7.

Communication – internal and external

Defined channels of communication is key for the success of the OH&S management system. It is recommended that there is clear policy on communication endorsed by Top Management identifying the process of communication. The organization will need to determine:

Question	Examples
What will be communicated?	OH&S Policy, site rules including personal responsibilities, hazards, risk assessments, Work Instructions, minutes from committee meetings, investigation results, organizational structure, performance
When communication occurs?	Recruitment permanent or temporary, induction internally and externally, morning briefing, safety committee meetings, pending legal requirements
Who will information be communicated to?	Workers including agency, contractors, external providers, product end users and other interested parties
How will information be communicated?	Notice boards, tool box talks, email, website, newsletters, supervision

Documented information

As with all management systems the extent of documented information will vary depending on the size, scope and complexity of processes within the organization. A practical approach to development and control of documented information will assist in business protection as well as providing sources of information for workers relating to hazard identification. Consider a risk-based approach to the level of documented information required including consideration for literacy and language. Documented information is not restricted to hard copy and will appear in a variety of media including electronic format, emails and web based. Below is a selection of the variety of documented information:

Internal / External Sources	Type	Use
External	Regulatory	Government website instructions and leaflets, codes of practice
External	Information	External Provider material safety data sheets, certificates of conformity
External	Information	External Provider machinery installation instructions and technical specifications
External	Information	Risk assessments and method statements
External	Certificates	Fire system, fixed wiring service records, liability insurance documents
External	Training	Certificates of competence (Fork Lift Truck, OH&S awareness)
Internal	Training	Induction presentations, tool box talks
Internal	Training	Individual training records
Internal	Work	Safe Systems of Work Work Instructions
Internal	Inspections	Evidence of maintenance and routine inspections

Methods of controlling Documented Information

It's essential to have a robust but simple system of control for documented information. This will ensure workers are always aware of the latest requirements relating to OH&S. In support of the latest revision of documented information there must be the means to communicate the latest policies, practices and work instructions. As previously indicated documented information will come from internal and external sources. Below are suggested means of controlling both internal and external documented information:

Internal

- Develop a document reference system within the header or footer e.g. Maintenance Procedure No. 1 – MP01, Maintenance Form 01 – MF01 etc
- Identify the revision status, revision date and author within the document footer
- Use the same document control methodology for electronic documents and data

- Develop a spread sheet identifying the reasons why previous revisions have been updated
- Determine the method of issue for documented information with consideration for recovery of pre-modified documented information and communication
- Archive in electronic format previous revisions of documents based on risk ensuring there is a means of backing up and recovering data
- Determine and identify in the spread sheet the intended document retention timescale. This may be based on legal requirements such as insurance documentation

External

- Determine what should be communicated and retained based on risk
- Consider scanning to reduce reliance on paper
- Maintain the integrity of archived documentation

Remember to create a simple system to use for all to understand and access accordingly. Consider supporting the chosen method with an instructional procedure with applicable training.

SECTION 8: OPERATION

Once processes within the organization have been identified (see clause 4.4) and planned, the method in which the business will operate (see Clause 6.0), the company needs to plan and control each process within the OH&S management system.

Operational Planning and Control is the method in which the organization determines what is required for each process and the method in which requirements are controlled to ensure workers are protected from harm. Operational Planning and Control is achieved by identifying the criteria for each process which may include:

- **The boundaries of each process and how they interact**
- **What resources are required to manage the process including leadership, equipment, time, human (competency and training aspects) and financial**
- **What documented information is required to aid management of the process including procedures and safe systems of work**
- **The method in which changes to the process are planned and controlled including unintended events**
- **Application of legal and other requirements or manufacturer's instructions for equipment**
- **Engineering controls, for example interlocked guards and exhaust systems**

The organization must also consider the adaptation of the work environment to ensure it is suitable and sufficient for all workers. Adaptation in broad terms may be induction of new workers or ergonomically changed processes to protect workers from harm and improve process efficiency.

Eliminating hazards and reducing OH&S risks

Having chosen the methodology for risk assessment determined in clause 6.0, the organization will use the 'Hierarchy of Controls' outlined in section 6 to eliminate or reduce hazards to the lowest practicable risk. It is essential that when conducting risk assessment workers, including external providers, are competent. On completion of risk assessment results should be communicated with those workers directly affected within the operation and to aid the development of control measures. Workers need to be included in the process of assessment and other system elements.

Management of Change

It is recognised that accidents can occur when processes deviate from defined established control measures. This may include changes in competent supervision and workers or the introduction of new materials, machinery and processes.

The organization must define and implement a process which considers change throughout the business. This may be a written policy which accounts for different scenarios based on risk and opportunity. The change process may be supported by a documented system to acknowledge issue and receipt of the notification to ensure it is communicated and understood. Notification of change may be supported by training and competence requirements. Change process could incorporate a mechanism to assess and prevent the introduction of new hazards. Examples of events where management of change might be necessary include but this is not exhaustive:

Change event	Method of management
Loss of knowledgeable competent member of staff	Organization of re-training of existing member of staff supported with an external provider until the employee is competent.
First aider absent	Temporarily train staff in alternative means of receiving first aid treatment including neighbouring businesses and emergency services.
Introduction of a new piece of machinery	Appoint a Project Manager to coordinate implementation including risk assessment, instruction, training, supervision. Provision of risk assessment and installation method statement from external provider. Development of control documents based on manufacturers recommendations.
Flood within a building	Appointed competent representative to conduct risk assessment and coordinate relocation of staff to a safe environment.
Introduction of new software	Project management coordination, presentations and toolbox talks, competence and awareness training.

General

The purchase of goods and services is a requirement for any business to function. The standard requires the organization to put controls in place to ensure those purchased goods and services do not introduce hazards and expose workers to harm including contractors.

Procurement

A robust procurement process is essential to control product and services inputs into an organization. Inputs may include raw materials for products, equipment including machinery, consumables such as cleaning products and workers conducting maintenance as part of a service agreement. The organization is required to develop a process which should include an assessment of the impact on safety of products and services prior to purchase. This may include obtaining product or material safety data from an external provider or by conducting a risk assessment. Risk assessment with an external provider may be considered during activities such as the purchase and installation of machinery. The assessment would identify potential hazards and suitable control measures to protect both organizational workers and contractors.

Within the process, consider the delivery of products to ensure they are inspected against specified requirements prior to release. Consideration must also be made to ensure those products and services are legally compliant. This may be through the assessment of material safety data sheets, declarations of conformity or business registration with trade associations. Personnel who are responsible for procurement must ensure they utilise competent workers to assist with assessments and to communicate safety information relating to product or service. Health and safety information may include material safety data sheets, training, competence requirements and instructions for use.

Contractors and Outsourcing

Many businesses use the services of contractors (external providers) to fulfil gaps in processes and to complete tasks requiring specialist knowledge. The standard requires the organization to conduct an assessment on those contractors including due diligence competency checks. The organization may consider the use of contractor selection criteria to ensure services are within scope of the task.

The organization must be satisfied there is a process to protect contractors (workers) and other workers who may be exposed to hazards due to their activities. During the procurement process written agreements may be established between the organization and contractor specifying the organizations rules. This may be supported by risk assessments and method statements conducted by both parties with communication of results.

It is key that necessary checks have been made to ensure contractors are competent and may, in some circumstances, require confirmation of compliance to legal requirements. For example, certification to work on electrical switch gear or to work on a gas boiler.

Once the procurement process has been completed it is good practice to support site activities with an induction programme. This will provide contractor workers with an understanding of the rules including any specific requirements, for example, site hazards, authorised areas, near miss reporting processes, safe walking routes, emergency action plans, supervision and required permits to work.

Documented Information

The standard requires the organization to maintain documented information relating to the procurement of products and services including contractor arrangements. Below is a list of examples of documented information considered for retention:

- Risk assessment and method statements between the organization and contractor
- Material safety data sheets
- Email exchanges relating to safety aspects
- Certificates of conformity – Harnesses, guarding, emergency stops, PPE
- Contractor permits and licences
- Completed external provider questionnaires
- Worker training records

Emergency preparedness and response

Planning for unexpected events is a good all-round organizational discipline. The risk assessment process, for ISO 45001 identification of hazards, may have highlighted potential emergency situations with possible catastrophic consequences. Therefore, it is necessary to put control measures in place to mitigate for these potential events.

Once emergency situations have been identified, which may involve workers at every level of the organization, a plan needs to be formulated and tested. Check that emergency preparedness and response have been tested within the internal audit plan.

Testing emergency response plans are critical to raise awareness of potential events and ensure control measures function including supervision, individual responsibilities, suitability of training and communication. Below are some examples of when emergency plans will be required:

Event	Recommendation
Provision of first aid	Testing of first aid response, consider shift patterns, availability of equipment and competent staff etc.
Evacuation drill	Method of raising the alarm, contacting the emergency services, accountability of workers, staged evacuation, changes in building layout etc.
Bomb threat	Raising the alarm, what to do with workers – stay put or evacuate to a safe area, keeping away from windows, controlled method of raising the alarm.
Chemical spillage	Raising the alarm, evacuation, containment, availability of Material Safety Data Sheets.

Once the plan has been tested it is important to provide workers with feedback to learn from experience. Again, there is a requirement to have suitable information and records as documented information.

SECTION 9: PERFORMANCE EVALUATION

Performance evaluation is a constructive process that aims to improve an organization's operation and is crucial to the 'Plan, Do, Check and Act' model prescribed by ISO 45001. These processes should help achieve and support organizational strategy and goals.

Monitoring, measurement, analysis and evaluation

An organization should check, review, inspect and observe its planned activities to ensure they are occurring as intended. An organization must make sure they have determined the appropriate processes, so they can evaluate how well they are performing based on risk and opportunities. Monitoring generally indicates processes that can check whether something is occurring as intended or planned.

The tables below provide examples of monitoring and specific control measures:

Event	Local Exhaust Ventilation System (LEV)
Monitoring	Appointed person to weekly inspect airflow of an LEV system to safely remove fumes from a process.
Measurement	Use of a calibrated meter to check the airflow at two inspection locations of the system according to a specified Work Instruction. (Employee is trained and competent to use the equipment).
Analysis	Review of recorded data determining the airflow efficiency of the system to ensure workers are safe. This may include trends. This would be in compliance with manufacturers specifications and regulatory requirements.
Evaluation	The trend analysis indicates a reduction in airflow therefore maintenance is triggered to isolate and inspect the LEV system.

Event	Safe Walking Routes
Monitoring	Appointed person daily site inspection of safe walking routes to ensure they are in a condition to prevent slips, trips and falls.
Measurement	Visual inspection to ensure there are no obstructions outside of defined safe walking routes. (Usually measurement is associated with measurement equipment to obtain data).
Analysis	Examination of results from inspections. In this case there may be a trend of equipment repeatedly left in the same location of a Safe Walking Route.
Evaluation	Determination of root cause of why equipment is repeatedly left in the safe walking route. Resulting in allocation of designated safe place for equipment away from the safe walking route.



Any equipment used to determine the measurement 'indicator' should be calibrated and maintained so that a high degree of confidence is gained in the credibility of data. The standard also requires the organization to implement a process to evaluate legal and other compliance including:

- The frequency and method of evaluation
- If action is needed, the process in which it will be evaluated and implemented
- Maintain knowledge and understanding of its compliance status
- Retain documented information to support the evaluation of legal and other requirements

In practice you may consider putting a list of compliance obligations within a spreadsheet as outlined under section 6 of this document. Periodically this process should be audited within the internal audit programme to ensure all compliance obligations have been fulfilled. Audit results including compliance status should be communicated to senior leadership within the organization. Any outstanding or pending requirements can be actioned by the leadership team. This will ensure compliance to obligations and reduction in risk including potential prosecution.

Internal Audit

An internal audit is a systematic method to check organizational processes and requirements, as well as those detailed in the ISO 45001 standard. This will ensure the processes in place are effective and the procedures are being adhered to. The internal audit programme will aid the organization to achieve the OH&S objectives and targets. It helps:

- Monitor compliance to policy and objectives
- Provide evidence that all necessary checks are carried out
- Ensure all current legislative and other requirements are met
- Assess the effectiveness of risk management
- Worker engagement leading to a positive safety culture
- Identify improvement using 'fresh eyes' to review a process
- Aid continual improvement

Internal audits must be conducted by competent staff with a degree of impartiality to the area being audited. A risk-based approach can be applied to areas being audited with an increased focus on higher risk activities. Internal audits must be planned with an expectation of each process being audited in regular intervals.

In addition to planned audits, unplanned audits may be conducted in reaction to problematic areas, near miss reports or incident data with focus on accident prevention.

It is beneficial to communicate audit results to applicable interested parties including workers and set realistic completion timescales for identified 'opportunities for improvement' or 'non-conformities'. Top Management must be aware of deficiencies within the system to ensure necessary resources can be allocated to mitigate the findings. Audit results will be reviewed as part of the management review process.

Management Review

Management Review is an essential element of the Occupational Health and Safety Management System. The aim of the review is for Top Management to assess the performance of the management system to ensure it has been effective and suitable for the needs of the business, ultimately preventing injury or harm to workers. The management review is also a planned activity to review objectives including compliance and to set new objectives.

Usually management review meetings are conducted annually, however many organizations conduct management reviews every six months or quarterly to track the performance of the system. If more frequent meetings are conducted, often the meeting agenda is reduced with the full agenda occurring annually.

The table on the following page provides an overview of prescribed management review agenda requirements:

9.3 Standard reference	Summary of requirement for Management Review agenda / clause reference point
a)	Provide a summary of the status of actions from the output of the previous management review. This will include completed or incomplete tasks and justifications for their status. This information can be pre-prepared for the meeting.
b1)	Explain any changes to internal and external issues relevant to the context of the organization to ensure the needs and expectations of interested parties including workers are fulfilled.
b2)	In addition to B1 note any changes or pending changes to legal and other requirements and actions to address compliance obligations.
b3)	If there are any differences or changes to organizational risk and opportunities, they should be noted and explained and discussed in the section below.
c)	Review whether compliance to OH&S policy and objectives have been achieved. It is good practice to place objectives within a table, align key performance indicators to achieve them and comments if they have or have not been achieved. This will also indicate compliance status of continual improvement.
d1)	Discuss any incidents or non-conformities which have occurred since the last review period including trends. Are there any trends and what actions have been taken to prevent re-occurrence?
d2)	Determine if monitoring and measuring has been effective in meeting expectations within the organization. If evidence suggests it has not been effective Top Management can influence improvement.
d3)	Discuss the status of compliance to legal and other requirements. This may include evidence to support compliance including the methods of determination and sources of information. Discuss any pending legal and other requirements.
d4)	Discuss results of internal audits and actions that have been taken to resolve any non-conformities. Discuss areas of improvement and areas which are performing well.
d5)	Overview of consultation of workers. This may be feedback from safety committee meetings and actions to address risk and opportunities. Other processes to ensure workers are safe including contractor arrangements.
d6)	Discuss risk and opportunities including performance of hazard identification and opportunities to mitigate harm to workers. The organization may wish to review significant findings of risk assessments.
e)	With consideration of the information discussed in previous sections are there enough resources to maintain and continuously improve the management system. This could be human or financial. Top Management are key to influence improvement in this area.
f)	Discuss communications with interested parties, this may include regulatory authorities or external providers who are providing materials which have an impact on safety.
g)	General discussion with the provision of information how the OH&S management system is performing and how can it continually improve in the future.

On completion of the management review meeting the organization must decide with senior leadership and support, what is needed to continuously improve OH&S and satisfy the standard. The following points outline the Management Review Meeting output requirements:

- Provide a wide-ranging conclusion to the continuing stability, adequacy and effectiveness in achieving its intended outcomes
- Identify continual improvement opportunities
- Identify any required changes to the OH&S management system
- Identify required resources
- Identify any actions needed
- Identify any integration improvements with other business processes. This may be further harmonisation with ISO 9001 or ISO 14001 management systems

- Any implications to the strategic direction of the business. This is a broad scope requirement to capture any topic to improve the OH&S management system

The organization is required to record the meeting minutes within documented information. This information must be communicated to the relevant interested parties and where applicable worker representatives.

It is good practice to transfer management review objectives into a separate document with identified key performance indicators, expected completed timescales and delegated responsibilities. These objectives may be communicated via the organizations email or placed on notice boards.



Incident

Unlike ISO 9001 Quality and ISO 14001 Environmental management systems, ISO 45001 introduces 'Incident' alongside non-conformity and corrective action. Clause 3 'Terms of Definition' within the standard provides the parameters in which 'incident' can be interpreted and reported. An 'incident' is an occurrence that does not result in an injury and / or ill health. Therefore, the organization must implement a system of reporting that captures events which have not necessarily been foreseen within processes of the management system. Often these are referred to as 'near misses', 'near-hit' or a 'close call'. When a near miss is reported there may be a process in which during the investigation the findings are recorded within a non-conformance report.

Basic example process of reporting an incident leading to non-conformance, corrective action and continuous improvement

Process	Event	Management System
Incident	<ul style="list-style-type: none"> A delivery vehicle during a reversing manoeuvre narrowly misses a worker. 	<ul style="list-style-type: none"> Driver has conducted the visitor induction including issue of site map.
Near miss report Card	<ul style="list-style-type: none"> The worker fills out a simple report card outlining the occurrence with the assistance of the supervisor. 	<ul style="list-style-type: none"> Near Miss Report Card available across the site. Process training delivered during induction.
Corrective Action	<ul style="list-style-type: none"> Cones and tape are immediately placed to prevent entry to the area of incident by the supervisor. 	<ul style="list-style-type: none"> Temporary Corrective Action.
Investigation	<ul style="list-style-type: none"> The supervisor has a discussion with the delivery driver relating to the circumstances. The warehouse and site manager discuss the incident and review the associated risk assessment. Workers located in the area provide input. 	<ul style="list-style-type: none"> Details recorded as part of the investigation. Risk assessment reviewed.
Risk based thinking solution	<ul style="list-style-type: none"> Following the risk assessment review including discussions with Top Management, physical barriers are placed on the pedestrian walkway as segregation of vehicles and transport. Additional lighting is installed. Barriers are incorporated into the maintenance programme. 	<ul style="list-style-type: none"> Risk assessment revised. Delivery driver induction modified to include barriered walkways. Non-conformance report completed with root cause analysis. Recorded within the incident report register. Maintenance programme updated.
Communication	<ul style="list-style-type: none"> The delivery driver (worker) is contacted and provided with incident feedback and closure. The worker who reported the near miss is provided with feedback. 	<ul style="list-style-type: none"> Incident report sent to transport company. Incident report worker signs the corrective action report as evidence of positive feedback.
Review	<ul style="list-style-type: none"> The incident is discussed at the Safety committee and management meetings. The responsible supervisor reports the effectiveness of the introduced changes. 	<ul style="list-style-type: none"> Safety committee and management meeting minutes. Committee meeting minutes posted on notice boards.
Management Review	<ul style="list-style-type: none"> Overview of incident and positive outcome within statistics. 	<ul style="list-style-type: none"> Near miss / incident statistics review. Management Review Minutes communicated. A regular audit of pedestrian routes is added to the internal audit programme as part of an improvement objective.

Resulting in Continuous Improvement

GET THE MOST FROM YOUR MANAGEMENT SYSTEMS

Top tips to get the most out of your health and safety management system:



1. To have an effective OH&S management system the organization must have commitment from 'Top Management' to implement and continually improve



6. Build the requirements of the standard in to existing processes and control – OHS is not an add-on



2. Develop the management system as a tool to protect workers and business interests and not just to satisfy the standard



7. Consider integrating this standard into existing management systems such as ISO 9001 Quality and ISO 14001 Environmental. This will help embed OH&S into the thinking of both Top Management and Workers leading to a safe workplace



3. Use 'context' to understand how the organization can internally and externally impact on OH&S including workers



8. Implementation of this standard is not a burden on your organization. Risk based thinking with the participation of workers should improve safety culture and productivity



4. Inform interested parties and workers of their objectives when implementing the standard to gain 'buy in' and generate a positive safety culture



5. When designing processes ensure that they are relevant to the environment they are intended to be used. In other words, do not overcomplicate the system



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