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**Occupational health and safety management systems —  
Requirements with guidance for use**

*Systèmes de management de la santé et de la sécurité au travail — Exigences avec directives d'utilisation*



Reference number  
ISO 45001:2018(E)

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is Project Committee ISO/PC 283, *Occupational health and safety management systems*.

## Introduction

### 0.1 Background

At the time of developing this International Standard, the International Labour Organization (ILO) estimates that 2.3 million people die every year from work-related accidents and diseases. An organization is responsible for the health and safety of its workers and that of other persons under its control who are performing work on its behalf, including promoting and protecting their physical and mental health. The adoption of an occupational health and safety (OH&S) management system is intended to enable an organization to improve its OH&S performance in the enhancement of health and safety at work and to manage its OH&S risks.

NOTE 1 The term "occupational safety and health" ("OSH") has the same meaning as "occupational health and safety" ("OH&S").

NOTE 2 The term "worker" (see 3.3) is defined to include top management (see 3.12), managerial and non-managerial persons.

### 0.2 Aim of an OH&S management system

The purpose of an OH&S management system is to provide a framework for managing the prevention of death, work-related injury and ill health. The intended outcome is to prevent death, work-related injury and ill health to workers, to improve and provide a safe and healthy workplace for its workers and other persons under its control. An organization's activities can pose a risk of death, work-related injury and ill health, consequently it is critically important for the organization to eliminate or minimize OH&S risks by taking effective preventive measures. When these measures are applied by the organization through its OH&S management system (supported by the use of appropriate controls, methods and tools, at all levels in the organization) they improve its OH&S performance. It can be more effective and efficient to take early action to address potential opportunities for improvement of OH&S performance.

An OH&S management system can enable an organization to improve its OH&S performance by:

- a) developing and implementing an OH&S policy and OH&S objectives;
- b) ensuring top management demonstrate leadership and commitment with respect to the OH&S management system;
- c) establishing systematic processes which consider its context (see A.4.1) and which take into account its risks and its opportunities;
- d) determining the hazards and OH&S risks associated with its activities; seeking to eliminate them, or putting in controls to minimize their potential effects;
- e) establishing operational controls to eliminate or minimize its OH&S risks;
- f) increasing awareness of its OH&S hazards and risks, and associated operational controls, through information, communication and training;
- g) evaluating its OH&S performance and seeking to improve it;
- h) establishing and developing the necessary competencies;
- i) developing and supporting an occupational health and safety culture in the organization;

- j) ensuring that workers, and where they exist, workers' representatives, are informed, consulted and participate.

An OH&S management system can assist an organization to fulfil its applicable legal requirements.

### 0.3 Success factors

The implementation of an OH&S management system is a strategic and operational decision for an organization. The success of the OH&S management system depends on leadership, commitment and participation from all levels and functions of the organization. The implementation and sustainability of an OH&S management system, its effectiveness and its ability to achieve its objectives are dependent on a number of key factors which can include:

- a) top management leadership and commitment;
- b) top management developing, leading and promoting a culture in the organization that supports the OH&S management system;
- c) participation of workers, and where they exist, workers' representatives;
- d) processes for communication and consultation;
- e) allocation of the necessary resources for its sustainability;
- f) clear OH&S policies, which are compatible with the overall strategic objectives and direction of the organization;
- g) the integration of the OH&S management system into the organization's business processes;
- h) the continual evaluation and monitoring of the OH&S management system to improve OH&S performance;
- i) OH&S objectives that align with the OH&S policies and reflect the organization's OH&S hazards and risks;
- j) awareness of its applicable legal requirements and other requirements;
- k) effective processes for identification of OH&S hazards, control of the OH&S risks and taking advantage of OH&S opportunities.

This International Standard, like other International Standards, is not intended to increase or change an organization's legal requirements.

Demonstration of successful implementation of this International Standard can be used by an organization to give assurance to workers and other interested parties that an effective OH&S management system is in place. Adoption of this International Standard, however, will not in itself guarantee optimal outcomes.

The level of detail, the complexity, the extent of documented information, and the resources needed to ensure the success of an organization's OH&S management system will depend on a number of factors, such as:

- the organization’s context (e.g. number of workers, size, geography, culture, social conditions, applicable legal requirements and other requirements);
- the scope of the organization’s OH&S management system;
- the nature of the organization’s activities and the related OH&S risks.

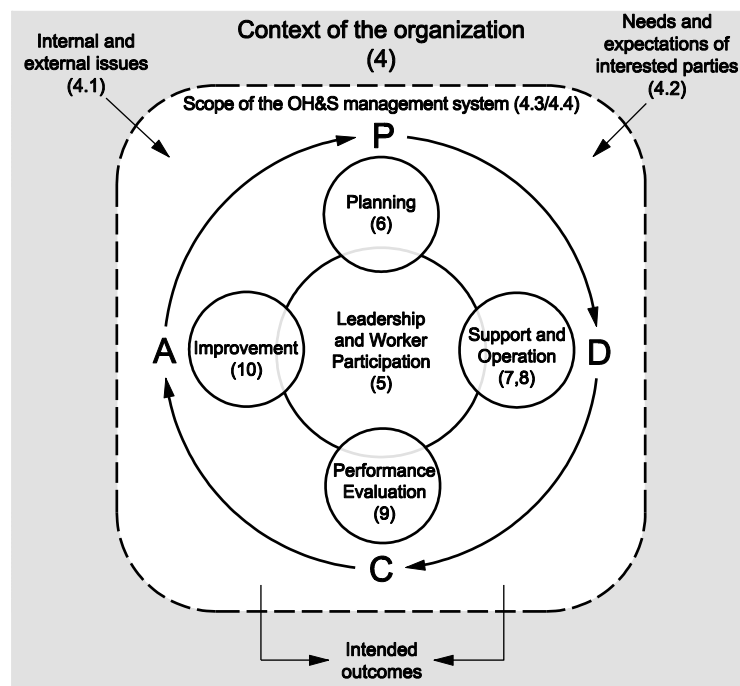
**0.4 Plan-Do-Check-Act cycle**

The basis of the OH&S management system approach applied in this International Standard is founded on the concept of Plan-Do-Check-Act (PDCA), which requires leadership, commitment and participation of workers, and where they exist, workers’ representatives, from all levels and functions of the organization.

The PDCA model is an iterative process used by organizations to achieve continual improvement. It can be applied to a management system and to each of its individual elements, as follows:

- Plan: establish objectives, programmes and processes necessary to deliver results in accordance with the organization’s OH&S policy.
- Do: implement the processes as planned.
- Check: monitor and measure activities and processes with regard to the OH&S policy and objectives, and report the results.
- Act: take actions to continually improve the OH&S performance to achieve the intended outcomes.

This International Standard incorporates the PDCA concept into a new framework, as shown in Figure 1.



NOTE The numbers given in brackets refer to the clause numbers in this International Standard

**Figure 1 — OH&S management system model for this International Standard**

## 0.5 Contents of this International Standard

This International Standard has adopted the “high-level structure” (i.e. clause sequence, common text and common terminology) developed by ISO to improve alignment among its International Standards for management systems.

This International Standard does not include requirements specific to other management systems, such as those for quality, environmental, security, or financial management, though its elements can be aligned or integrated with those of other management systems.

Clauses 4 to 10 contain requirements that can be used to assess conformity. Annex A provides informative explanations to assist in the interpretation of those requirements.

In this International Standard, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

Information marked as “NOTE” is for guidance in understanding or clarifying the associated requirement. “Notes to entry” used in Clause 3 provide additional information that supplements the terminological data and can contain provisions relating to the use of a term.

The terms and definitions in Clause 3 are arranged in conceptual order, with an alphabetical index provided at the end of the document.

# Occupational health and safety management systems — Requirements with guidance for use

## 1 Scope

This International Standard specifies requirements for an occupational health and safety (OH&S) management system, with guidance for its use, to enable an organization to provide safe and healthy working conditions for the prevention of work-related injury and ill health and to proactively improve its OH&S performance. This includes the development and implementation of an OH&S policy and objectives which take into account applicable legal requirements and other requirements to which the organization subscribes.

This International Standard is applicable to any organization that wishes to:

- a) establish, implement and maintain an OH&S management system to improve occupational health and safety, eliminate or minimize OH&S risks (including system deficiencies), take advantage of OH&S opportunities, and address OH&S management system nonconformities associated with its activities;
- b) continually improve its OH&S performance and the achievement of its OH&S objectives;
- c) assure itself of conformity with its OH&S policy;
- d) demonstrate conformity with the requirements of this International Standard.

This International Standard is intended to be applicable to any organization regardless of its size, type and activities and applies to the OH&S risks under the organization's control, taking into account factors such as the context in which the organization operates and the needs and expectations of its workers and other interested parties.

This International Standard does not state specific criteria for OH&S performance, nor is it prescriptive about the design of an OH&S management system.

This International Standard enables an organization, through its OH&S management system, to integrate other aspects of health and safety, such as worker wellness/ wellbeing.

This International Standard does not address issues such as product safety, property damage or environmental impacts, beyond the risks they provide to workers and other relevant interested parties.

This International Standard can be used in whole or in part to systematically improve OH&S management. However, claims of conformity to this International Standard are not acceptable unless all its requirements are incorporated into an organization's OH&S management system and fulfilled without exclusion.

**NOTE** For further guidance on the intent of the requirements in this International Standard, see Annex A.

## 2 Normative references

There are no normative references.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **organization**

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its *objectives* (3.16)

Note 1 to entry: The concept of organization includes, but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

### 3.2

#### **interested party**

person or *organization* (3.1) that can affect, be affected by, or perceive itself to be affected by a decision or activity

Note 1 to entry: This International Standard sets out *requirements* (3.8) with respect to *workers* (3.3) who are also interested parties.

### 3.3

#### **worker**

person performing work or work-related activities under the control of the *organization* (3.1)

Note 1 to entry: Persons perform work or work-related activities under various arrangements, paid or unpaid, such as regularly or temporarily, intermittently or seasonally, casually or on a part-time basis.

Note 2 to entry: Workers include *top management* (3.12), managerial and non-managerial persons.

Note 3 to entry: The work or work-related activities performed under the control of the organization may be performed by workers employed by the organization, or other persons, including workers from external providers, contractors, individuals, and situations where the organization has some degree of control over the workers such as agency workers.

### 3.4

#### **participation**

involvement of *workers* (3.3) in decision-making process(es) in the *OH&S management system* (3.11)

### 3.5

#### **consultation**

*process* (3.25) by which the *organization* (3.1) seeks the views of the *workers* (3.3) before it makes a decision

### 3.6

#### **workplace**

place under the control of the *organization* (3.1) where a person needs to be or to go by reason of work

Note 1 to entry: The organization's responsibilities under the *OH&S management system* (3.11) for the workplace depends on the degree of control over the workplace.

**3.7****contractor**

external *organization* (3.1) providing services to the organization at a *workplace* (3.6) in accordance with agreed specifications, terms and conditions

Note 1 to entry: Services may include construction activities.

**3.8****requirement**

need or expectation that is stated, generally implied or obligatory

Note 1 to entry: “Generally implied” means a custom or common practice for the *organization* (3.1) that is consistent with the *OH&S policy* (3.15).

**3.9****legal requirements and other requirements**

*requirements* (3.8) established by law that are applicable to the *organization* (3.1), legally-binding obligations of the *organization* and requirements to which the *organization* subscribes

Note 1 to entry: For the purposes of this International Standard, legal requirements and other requirements are those relevant to the *OH&S management system* (3.11).

Note 2 to entry: Legally-binding obligations may include the provisions in collective agreements.

Note 3 Legal requirements and other requirements include those that identify the persons who are *workers'* (3.3) representatives in accordance with laws, regulations, collective agreements and practice.

**3.10****management system**

set of interrelated or interacting elements of an *organization* (3.1) to establish *policies* (3.14) and *objectives* (3.15) and *processes* (3.25) to achieve those *objectives*

Note 1 to entry: A management system can address a single discipline or several disciplines.

Note 2 to entry: The system elements include the *organization's* structure, roles and responsibilities, planning and operation, performance evaluation and improvement.

Note 3 to entry: The scope of a management system may include the whole of the *organization*, specific and identified functions of the *organization*, specific and identified sections of the *organization*, or one or more functions across a group of *organizations*.

**3.11****occupational health and safety management system****OH&S management system**

*management system* (3.10) or part of a *management system* used to achieve the *OH&S policy* (3.15).

Note 1 to entry: The intended outcomes of the *OH&S management system* are to prevent *injury and ill health* (3.18) to *workers* (3.3) and to provide safe and healthy *workplace(s)* (3.4).

Note 2 to entry: The terms “occupational health and safety” (OH&S) and “occupational safety and health” (OSH) have the same meaning.

**3.12**

**top management**

person or group of people who directs and controls an *organization* (3.1) at the highest level

Note 1 to entry: *Top management* has the power to delegate authority and provide resources within the *organization* provided ultimate responsibility for the *OH&S management system* (3.11) is retained.

Note 2 to entry: If the scope of the *management system* (3.10) covers only part of an *organization*, then *top management* refers to those who direct and control that part of the *organization*.

**3.13**

**effectiveness**

extent to which planned activities are realized and planned results achieved

**3.14**

**policy**

intentions and direction of an *organization* (3.1), as formally expressed by its *top management* (3.12)

**3.15**

**occupational health and safety policy**

**OH&S policy**

*policy* (3.14) to prevent work-related *injury and ill health* (3.18) to *worker(s)* (3.3) and to provide a safe and healthy *workplace(s)* (3.6)

**3.16**

**objective**

result to be achieved

Note 1 to entry: An objective can be strategic, tactical, or operational.

Note 2 to entry: Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and *process* (3.25)).

Note 3 to entry: An objective can be expressed in other ways, e.g. as an intended outcome, a purpose, an operational criterion, as an *OH&S objective* (3.17), or by the use of other words with similar meaning (e.g. aim, goal, or target).

**3.17**

**occupational health and safety objective**

**OH&S objective**

*objective* (3.16) set by the *organization* (3.1) to achieve specific results consistent with the *OH&S policy* (3.15)

**3.18**

**injury and ill health**

adverse effect on the physical, mental or cognitive condition of a person

Note 1 to entry: These conditions may include occupational disease, illness and death.

**3.19  
hazard**

source or situation with a potential to cause *injury and ill health* (3.18)

**3.20  
risk**

effect of uncertainty

Note 1 to entry: An effect is a deviation from the expected — positive or negative.

Note 2 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

Note 3 to entry: Risk is often characterized by reference to potential "events" (as defined in ISO Guide 73:2009, 3.5.1.3) and "consequences" (as defined in ISO Guide 73:2009, 3.6.1.3), or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated "likelihood" (as defined in ISO Guide 73:2009, 3.6.1.1) of occurrence.

**3.21  
occupational health and safety risk  
OH&S risk**

combination of the likelihood of occurrence of a work-related hazardous event or exposure(s) and the severity of *injury and ill health* (3.18) that can be caused by the event or exposures

**3.22  
occupational health and safety opportunity  
OH&S opportunity**

circumstance or set of circumstances that can lead to improvement of *OH&S performance* (3.28)

**3.23  
competence**

ability to apply knowledge and skills to achieve intended results

**3.24  
documented information**

information required to be controlled and maintained by an *organization* (3.1) and the medium on which it is contained

Note 1 to entry: Documented information can be in any format and media and from any source.

Note 2 to entry: Documented information can refer to:

- a) the *management system* (3.10), including related *processes* (3.25);
- b) information created in order for the organization to operate (documentation);
- c) evidence of results achieved (records).

**3.25  
process**

set of interrelated or interacting activities which transforms inputs into outputs

**3.26**

**procedure**

specified way to carry out an activity or a *process* (3.25)

Note 1 to entry: Procedures may be documented or not.

**3.27**

**performance**

measurable result

Note 1 to entry: Performance can relate either to quantitative or qualitative findings. Results can be determined and evaluated by qualitative or quantitative methods.

Note 2 to entry: Performance can relate to the management of activities, *processes* (3.25), products (including services), systems or *organizations* (3.1).

**3.28**

**occupational health and safety performance**

**OH&S performance**

*performance* (3.25) related to the *effectiveness* (3.13) of the prevention of *injury and ill health*(3.18) to *workers* (3.3) and the provision of safe and healthy *workplace(s)* (3.6)

**3.29**

**outsource** (verb)

make an arrangement where an external *organization* (3.1) performs part of an organization's function or *process* (3.25)

Note 1 to entry: An external *organization* is outside the scope of the *management system* (3.10), although the outsourced function or *process* is within the scope.

**3.30**

**monitoring**

determining the status of a system, a *process* (3.25) or an activity

Note 1 to entry: To determine the status, there may be a need to check, supervise or critically observe.

**3.31**

**measurement**

*process* (3.25) to determine a value

**3.32**

**audit**

systematic, independent and documented *process* (3.25) for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled

Note 1 to entry: An internal audit is conducted by the organization (3.1) itself, or by an external party on its behalf.

Note 2 to entry: An independent process includes provisions for ensuring objectivity and impartiality.

Note 3 to entry: "Audit evidence" is "records, statements of fact and other information which are relevant to the audit criteria and verifiable" and "audit criteria" are " set of policies (3.16), procedures (3.26) or requirements (3.8)

used as a reference against which audit evidence is compared”, as defined in ISO 19011, *Guidelines for auditing management systems*.

### 3.33

#### **conformity**

fulfilment of a *requirement* (3.8)

### 3.34

#### **nonconformity**

non-fulfilment of a *requirement* (3.8)

Note 1 to entry: Nonconformity relates to *requirements* in this International Standard and additional *OH&S management system* (3.11) *requirements* that an *organization* (3.1) establishes for itself.

### 3.35

#### **incident**

occurrence(s) arising out of or in the course of work that could or does result in *injury and ill health* (3.18)

Note 1 to entry: An incident where *injury and ill health* occurs is referred to by some as an “accident.”

Note 2 to entry: An incident where no *injury and ill health* occurs but has the potential to do so may be referred to as a “near-miss”, “near-hit”, “close call”.

Note 3 to entry: Although there can be one or more *nonconformities* (3.34) related to an incident, an incident can also occur where there is no *nonconformity*.

### 3.36

#### **corrective action**

action to eliminate the cause(s) of a *nonconformity* (3.34) or an *incident* (3.35) and to prevent recurrence

### 3.37

#### **continual improvement**

recurring activity to enhance *performance* (3.27)

Note 1 to entry: Enhancing *performance* relates to the use of the *OH&S management system* (3.11) in order to achieve improvement in overall *OH&S performance* (3.26) consistent with the *OH&S policy* (3.15) and *OH&S objectives* (3.17).

Note 2 to entry: Continual does not mean continuous so the activity does not need to take place in all areas simultaneously.

## 4 Context of the organization

### 4.1 Understanding the organization and its context

The organization shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcome(s) of its OH&S management system.

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

The organization shall determine:

- a) the other interested parties, in addition to its workers, that are relevant to the OH&S management system;

- b) the relevant needs and expectations (i.e. requirements) of workers and these other interested parties;
- c) which of these needs and expectations become applicable legal requirements and other requirements.

NOTE It is important to determine the different needs and expectations of managerial and non-managerial workers.

### **4.3 Determining the scope of the OH&S management system**

The organization shall determine the boundaries and applicability of the OH&S management system to establish its scope.

When determining this scope, the organization shall :

- a) consider the external and internal issues referred to in 4.1;
- b) take into account the requirements referred to in 4.2;
- c) take into account the work related activities performed.

Once the scope is defined, the OH&S management system shall include activities, products and services within the organization's control or influence that can impact the organization's OH&S performance.

The scope shall be available as documented information.

### **4.4 OH&S management system**

The organization shall establish, implement, maintain and continually improve an OH&S management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard.

## **5 Leadership and worker participation**

### **5.1 Leadership and commitment**

Top management shall demonstrate leadership and commitment with respect to the OH&S management system by:

- a) taking overall responsibility and accountability for the protection of workers' work-related health and safety;
- b) ensuring that the OH&S policy and related OH&S objectives are established and are compatible with the strategic direction of the organization;
- c) ensuring the integration of the OH&S management system processes and requirements into the organization's business processes;
- d) ensuring that the resources needed to establish, implement, maintain and improve the OH&S management system are available;
- e) ensuring active participation of workers, and where they exist, workers' representatives, using consultation and the identification and removal of obstacles or barriers to participation;

- f) communicating the importance of effective OH&S management and of conforming to the OH&S management system requirements;
- g) ensuring that the OH&S management system achieves its intended outcome(s);
- h) directing and supporting persons to contribute to the effectiveness of the OH&S management system
- i) ensuring and promoting continual improvement of the OH&S management system to improve OH&S performance by systematically identifying and taking actions to address nonconformities, opportunities, and work related hazards and risks, including system deficiencies ;
- j) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility;
- k) developing, leading and promoting a culture in the organization that supports the OH&S management system.

NOTE Reference to “business” in this International Standard can be interpreted broadly to mean those activities that are core to the purposes of the organization’s existence.

## 5.2 OH&S policy

Top management shall establish, implement and maintain an OH&S policy in consultation with workers at all levels of the organization (see 5.3 and 5.4) that:

- a) includes a commitment to provide safe and healthy working conditions for the prevention of work-related injury and ill health and is appropriate to the purpose, the size and context of the organization and to the specific nature of its OH&S risks and OH&S opportunities;
- b) provides a framework for setting the OH&S objectives;
- c) includes a commitment to satisfy applicable legal requirements and other requirements;
- d) includes a commitment to the control of OH&S risks using the hierarchy of controls (see 8.1.2);
- e) includes a commitment to continual improvement of the OH&S management system (see 10.2) to enhance the organization’s OH&S performance;
- f) includes a commitment to participation, i.e. the involvement of workers’, and where they exist, workers’ representatives, in the decision-making processes in the OH&S management system .

The OH&S policy shall:

- be available as documented information;
- be communicated to workers within the organization;
- be available to interested parties, as appropriate;
- be reviewed periodically to ensure that it remains relevant and appropriate.

## 5.3 Organizational roles, responsibilities, accountabilities and authorities

Top management shall ensure that the responsibilities, accountabilities and authorities for relevant roles within the OH&S management system are assigned and communicated at all levels within the

organization and maintained as documented information. Workers at each level of the organization shall assume responsibility for those aspects of OH&S management system over which they have control.

Top management shall assign the responsibility and authority for:

- a) ensuring that the OH&S management system conforms to the requirements of this International Standard;
- b) reporting on the performance of the OH&S management system to top management.

#### **5.4 Participation and consultation**

The organization shall, establish, implement and maintain process(es) for participation (including consultation) in the development, planning, implementation, evaluation and actions for improvement of the OH&S management system by workers at all applicable levels and functions, and where they exist, workers' representatives.

The organization shall:

- a) provide mechanisms, time, training and resources necessary for participation;
- b) provide timely access to clear, understandable and relevant information about the OH&S management system;
- c) identify and remove obstacles or barriers to participation and minimize those that cannot be removed;

NOTE 1 Obstacles and barriers can include failure to respond to worker inputs or suggestions, language or literacy barriers, reprisals or threats of reprisals and policies or practices that discourage or penalize worker participation.

- d) give additional emphasis to the participation of non-managerial workers in the following:
  - 1) determining the mechanisms for their participation and consultation;
  - 2) hazard identification and assessment of risk (see 6.1, 6.1.1, and 6.1.2);
  - 3) actions to control hazards and risks (see 6.1.4);
  - 4) identification of needs of competence, training and evaluation of training (see 7.2);
  - 5) determining the information that needs to be communicated and how this should be done (see 7.4);
  - 6) determining control measures and their effective use (see 8.1, 8.2, and 8.6);
  - 7) investigating incidents and nonconformities and determining corrective actions (see 10.1);
- e) give additional emphasis to the inclusion of non-managerial workers in consultation related to the following:
  - 1) determining the needs and expectations of interested parties (see 4.2);
  - 2) establishing the policy (see 5.2);
  - 3) assigning organizational roles, responsibilities, accountabilities and authorities as applicable (see 5.3);

- 4) determining how to apply legal requirements and other requirements (see 6.1.3);
- 5) establishing OH&S objectives (see 6.2.1);
- 6) determining applicable controls for outsourcing, procurement and contractors (see 8.3, 8.4, and 8.5);
- 7) determining what needs to be monitored, measured and evaluated (see 9.1.1);
- 8) planning, establishing, implementing and maintaining an audit programme(s) (see 9.2.2);
- 9) establishing a continual improvement process (see 10.2.2).

NOTE 2 Participation can include, as applicable, engaging health and safety committees and workers' representatives.

NOTE 3 The ILO's ILS recommend the provision of personal protective equipment (PPE) at no cost to workers, in order to remove an important barrier to participation in the OH&S management system.

## 6 Planning

### 6.1 Actions to address risks and opportunities

#### 6.1.1 General

When planning for the OH&S management system, the organization shall consider the issues referred to in 4.1 (context), the requirements referred to in 4.2 (interested parties) and 4.3 (the scope of its OH&S management system) and determine the risks and opportunities that need to be addressed to:

- a) give assurance that the OH&S management system can achieve its intended outcome(s);
- b) prevent, or reduce, undesired effects;
- c) achieve continual improvement.

The organization shall consider the effective participation of workers (see 5.4) in the planning process and, where appropriate, the involvement of other interested parties.

When determining the risks and opportunities that need to be addressed, the organization shall take into account:

- a) OH&S hazards and their associated OH&S risks (see 6.1.2.3) and OH&S opportunities (see 6.1.2.4);
- b) applicable legal requirements and other requirements (see 6.1.3);
- c) risks (see 6.1.2.3) and opportunities (see 6.1.2.4) related to the operation of the OH&S management system that can affect the achievement of the intended outcomes.

The organization shall assess the risks and identify the opportunities that are relevant to the intended outcome of the OH&S management system associated with changes in the organization, its processes, or the OH&S management system. In the case of planned changes, permanent or temporary, this assessment shall be undertaken before the change is implemented (see 8.2).

The organization shall maintain documented information of its:

- OH&S risks and OH&S opportunities that need to be addressed;
- processes needed to address risks and opportunities (see 6.1.1 to 6.1.4) to the extent necessary to have confidence they are carried out as planned.

## **6.1.2 Hazard identification and assessment of OH&S risks**

### **6.1.2.1 Hazard identification**

The organization shall establish, implement and maintain a process for the on-going proactive identification of hazards arising. The process shall take into account but not be limited to:

- a) routine and non-routine activities and situations, including consideration of:
  - 1) infrastructure, equipment, materials, substances and the physical conditions of the workplace;
  - 2) hazards that arise as a result of product design including during research, development, testing, production, assembly, construction, service delivery, maintenance or disposal;
  - 3) human factors;
  - 4) how the work is actually done;
- b) emergency situations;
- c) people, including consideration of:
  - 1) those with access to the workplace and their activities, including workers, contractors, visitors and other persons;
  - 2) those in the vicinity of the workplace who can be affected by the activities of the organization;
  - 3) workers at a location not under the direct control of the organization;
- d) other issues, including consideration of:
  - 1) the design of work areas, processes, installations, machinery/equipment, operating procedures and work organization, including their adaptation to human capabilities;
  - 2) situations occurring in the vicinity of the workplace caused by work-related activities under the control of the organization;
  - 3) situations not controlled by the organization and occurring in the vicinity of the workplace that can cause work-related injury and ill health to persons in the workplace;
- e) actual or proposed changes in the organization, its operations, processes, activities and OH&S management system (see 8.2);
- f) changes in knowledge of, and information about, hazards;
- g) past incidents, internal or external to the organization, including emergencies, and their causes;
- h) how work is organized and social factors, including workload, work hours, leadership and the culture in the organization.

### 6.1.2.2 Assessment of OH&S risks and other risks to the OH&S management system

The organization shall establish, implement and maintain a processes to:

- a) assess OH&S risks from the identified hazards taking into account applicable legal requirements and other requirements and the effectiveness of existing controls;
- b) identify and assess the risks related to the establishment, implementation, operation and maintenance of the OH&S management system that can occur from the issues identified in 4.1 and the needs and expectations identified in 4.2.

The organization's methodology(ies) and criteria for assessment of OH&S risks shall be defined with respect to scope, nature and timing to ensure it is proactive rather than reactive and used in a systematic way. These methodologies and criteria shall be maintained and retained as documented information.

### 6.1.2.3 Identification of OH&S opportunities and other opportunities

The organization shall establish, implement and maintain processes to identify:

- a) opportunities to enhance OH&S performance taking into account:
  - 1) planned changes to the organization, its processes or its activities;
  - 2) opportunities to eliminate or reduce OH&S risks;
  - 3) opportunities to adapt work, work organization and work environment to workers;
- b) opportunities for improving the OH&S management system.

### 6.1.3 Determination of applicable legal requirements and other requirements

The organization shall establish, implement and maintain a process to:

- a) determine and have access to up-to-date legal requirements and other requirements to which the organization subscribes that are applicable to its hazards and OH&S risks;
- b) determine how these legal requirements and other requirements apply to the organization and what needs to be communicated (see 7.4);
- c) take these legal requirements and other requirements into account when establishing, implementing, maintaining and continually improving its OH&S management system.

The organization shall maintain and retain documented information on its applicable legal requirements and other requirements and shall ensure that it is updated to reflect any changes.

NOTE Legal requirements and other requirements can result in risks and opportunities to the organization.

### 6.1.4 Planning to take action

The organization shall plan:

- a) actions to:
  - 1) address these risks and opportunities (see 6.1.2.3 and 6.1.2.4);

- 2) address applicable legal requirements and other requirements (see 6.1.3);
  - 3) prepare for, and respond to, emergency situations (see 8.6);
- b) how to
- 1) integrate and implement the actions into its OH&S management system processes or other business processes;
  - 2) evaluate the effectiveness of these actions.

The organization shall take into account the hierarchy of controls (see 8.1.2) and outputs from the OH&S management system (see 10.2.2) when planning to take action.

When planning its actions the organization shall consider best practices, technological options, financial, operational and business requirements and constraints.

## 6.2 OH&S objectives and planning to achieve them

### 6.2.1 OH&S objectives

The organization shall establish OH&S objectives at relevant functions and levels to maintain and improve the OH&S management system and to achieve continual improvement in OH&S performance (see Clause 10).

The OH&S objectives shall:

- a) be consistent with the OH&S policy;
- b) take into account applicable legal requirements and other requirements;
- c) take into account the results of the assessment of OH&S risks and OH&S opportunities and other risks and opportunities;
- d) take into account the outputs of consultation with workers, and where they exist, workers' representatives;
- e) be measurable (if practicable) or capable of evaluation;
- f) be monitored;
- g) be clearly communicated (see 7.4);
- h) be updated as appropriate.

### 6.2.2 Planning to achieve OH&S objectives

When planning how to achieve its OH&S objectives, the organization shall determine:

- a) what will be done;

- b) what resources will be required;
- c) who will be responsible;
- d) when it will be completed;
- e) how it will be measured through indicators (if practicable) and monitored, including frequency;
- f) how the results will be evaluated;
- g) how the actions to achieve OH&S objectives will be integrated into the organization's business processes.

The organization shall maintain and retain documented information on the OH&S objectives and plans to achieve them.

## 7 Support

### 7.1 Resources

The organization shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the OH&S management system.

### 7.2 Competence

The organization shall:

- a) determine the necessary competence of workers that affect or can affect its OH&S performance;
- b) ensure that workers are competent on the basis of appropriate education, induction, training, or experience;
- c) where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken;
- d) retain appropriate documented information as evidence of competence.

NOTE Applicable actions can include, for example: the provision of training to, the mentoring of, or the re-assignment of currently employed persons; or the hiring or contracting of competent persons.

### 7.3 Awareness

Workers shall be made aware of:

- a) the OH&S policy;
- b) their contribution to the effectiveness of the OH&S management system, including the benefits of improved OH&S performance;
- c) the implications of not conforming with the OH&S management system requirements, including the consequences, actual or potential, of their work activities;
- d) information and outcome of the investigation of relevant incidents;

- e) OH&S hazards and risks that are relevant for them.

NOTE The ILO's ILS recommend that where workers identify circumstances of danger or a hazardous environment which can cause injury and ill health, they should be able to remove themselves and inform the organization of the circumstances, without risk of penalization.

#### **7.4 Information and communication**

The organization shall determine the need for internal and external information and communications relevant to the OH&S management system including:

- a) on what it will inform about and communicate;
- b) when to inform and communicate;
- c) who to inform and with whom to communicate:
  - 1) internally among the various levels and functions of the organization;
  - 2) with contractors and visitors to the workplace;
  - 3) with other external or interested parties;
- d) how to inform and communicate;
- e) how it will receive, maintain documented information on, and respond to relevant communications.

The organization shall define the objectives to be achieved by informing and communicating, and shall evaluate whether those objectives have been met.

The organization shall take into account diversity aspects (for example language, culture, literacy, disability), where they exist, when considering its information and communication needs.

The organization shall ensure that, when appropriate, the views of relevant external interested parties about matters pertinent to the OH&S management system are considered.

#### **7.5 Documented information**

##### **7.5.1 General**

The organization's OH&S management system shall include:

- a) documented information required by this International Standard;
- b) documented information determined by the organization as being necessary for the effectiveness of the OH&S management system.

NOTE The extent of documented information for an OH&S management system can differ from one organization to another due to:

- the size of organization and its type of activities, processes, products and services;
- the complexity of processes and their interactions;
- the competence of persons.

### 7.5.2 Creating and updating

When creating and updating documented information the organization shall ensure appropriate:

- a) identification and description (e.g. a title, date, author, or reference number);
- b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic);
- c) review and approval for suitability and adequacy.

### 7.5.3 Control of documented Information

Documented information required by the OH&S management system and by this International Standard shall be controlled to ensure:

- a) it is available and suitable for use, where and when it is needed;
- b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

For the control of documented information, the organization shall address the following activities, as applicable:

- distribution, access, retrieval and use;
- storage and preservation, including preservation of legibility;
- control of changes (e.g. version control);
- retention and disposition;
- access by workers, and where they exist, workers' representatives, to relevant documented information.

Documented information of external origin determined by the organization to be necessary for the planning and operation of the OH&S management system shall be identified as appropriate, and controlled.

NOTE Access can imply a decision regarding the permission to view the documented information only, or the permission and authority to view and change the documented information.

## 8 Operation

### 8.1 Operational planning and control

#### 8.1.1 General

The organization shall plan, implement and control the processes needed to meet requirements of the OH&S management system, and to implement the actions determined in Clause 6, by:

- a) establishing criteria for the processes;
- b) implementing control of the processes in accordance with the criteria;

- c) keeping documented information to the extent necessary to have confidence that the processes have been carried out as planned;
- d) determining situations where the absence of documented information could lead to deviations from the OH&S policy and the OH&S objectives;
- e) adapting work to workers.

On multi-employer workplaces, the organization shall implement a process for coordinating the relevant parts of the OH&S management system with other organizations.

### **8.1.2 Hierarchy of controls**

The organization shall establish a process and determine controls for achieving reduction in OH&S risks using the following hierarchy:

- a) eliminate the hazard;
- b) substitute with less hazardous materials, processes, operations or equipment;
- c) use engineering controls;
- d) use administrative controls;
- e) provide and ensure use of adequate personal protective equipment.

### **8.2 Management of change**

The organization shall establish a process for the implementation and control of planned changes that impact OH&S performance such as:

- a) new products, processes or services;
- b) changes to work processes, procedures, equipment, or organizational structure;
- c) changes to applicable legal requirements and other requirements;
- d) changes in knowledge or information about hazards and related OH&S risks;
- e) developments in knowledge and technology.

The organization shall control temporary and permanent changes to promote OH&S opportunities and to ensure they do not have an adverse impact on OH&S performance.

The organization shall review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary, including addressing potential opportunities (see Clause 6).

### **8.3 Outsourcing**

The organization shall ensure that outsourced processes affecting its OH&S management system are controlled. The type and degree of control to be applied to these processes shall be defined within the OH&S management system.

NOTE The type and degree of control of an outsourced process are part of the OH&S management system, wherever the process is carried out at the workplace.

#### 8.4 Procurement

The organization shall establish controls to ensure that the procurement of goods (for example products, hazardous materials or substances, raw materials, equipment) and services conform to its OH&S management system requirements.

#### 8.5 Contractors

The organization shall establish processes to identify and communicate the hazards and to evaluate and control the OH&S risks, arising from the:

- a) contractors' activities and operations to the organization's workers;
- b) organization's activities and operations to the contractors' workers;
- c) contractors' activities and operations to other interested parties in the workplace ;
- d) contractors' activities and operations to contractors' workers.

The organization shall establish and maintain processes to ensure that the requirements of the organization's OH&S management system are met by contractors and their workers. These processes shall include the OH&S criteria for selection of contractors.

#### 8.6 Emergency preparedness and response

The organization shall identify potential emergency situations; assess OH&S risks associated with these emergency situations (see 6.1.2) and maintain a process to prevent or minimize OH&S risks from potential emergencies, including:

- a) the establishment of a planned response to emergency situations and including first aid;
- b) the periodic testing and exercise of emergency response capability;
- c) the evaluation and, as necessary, revision of emergency preparedness processes and procedures including after testing and in particular after the occurrence of emergency situations;
- d) the communication and provision of relevant information to all workers and at all levels of the organization on their duties and responsibilities;
- e) the provision of training for emergency prevention, first aid, preparedness and response;
- f) the communication of relevant information to contractors, visitors, emergency response services, government authorities, and, as appropriate, the local community.

In all stages of the process the organization shall take into account the needs and capabilities of all relevant interested parties and ensure their involvement.

The organization shall maintain and retain documented information on the process and on the plans for responding to potential emergency situations.

## **9 Performance evaluation**

### **9.1 Monitoring, measurement, analysis and evaluation**

#### **9.1.1 General**

The organization shall establish, implement and maintain a process for monitoring, measurement and evaluation.

The organization shall determine:

- a) what needs to be monitored and measured, including:
  - 1) applicable legal requirements and other requirements;
  - 2) its activities and operations related to identified hazards and OH&S risks; risks, and OH&S opportunities;
  - 3) operational controls;
  - 4) the organization's OH&S objectives;
- b) the criteria against which the organization will evaluate its OH&S performance;
- c) the methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results;
- d) when the monitoring and measuring shall be performed;
- e) when the results from monitoring and measurement shall be analyzed, evaluated and communicated.

The organization shall ensure, as applicable, that monitoring and measurement equipment is calibrated or verified and is used and maintained as appropriate.

NOTE There can be legal requirements or other requirements (e.g. national or international standards) concerning the calibration or verification of monitoring and measuring equipment.

The organization shall evaluate the OH&S performance, and determine the effectiveness of the OH&S management system.

The organization shall retain appropriate documented information as evidence of the monitoring measurement, analysis and evaluation results.

#### **9.1.2 Evaluation of compliance with legal requirements and other requirements**

The organization shall plan, establish, implement and maintain a process for evaluating compliance with applicable legal requirements and other requirements (see 6.1.3).

The organization shall:

- a) determine the frequency and method(s) by which compliance will be evaluated;
- b) evaluate compliance;
- c) take action if needed in accordance with 10.1;
- d) maintain knowledge and understanding of its status of compliance with legal requirements and other requirements;
- e) retain documented information of the compliance evaluation result(s).

## 9.2 Internal audit

### 9.2.1 Internal audit objectives

The organization shall conduct internal audits at planned intervals to provide information on whether the OH&S management system:

- a) conforms to:
  - 1) the organization's own requirements for its OH&S management system, including the OH&S policy and OH&S objectives;
  - 2) the requirements of this International Standard;
- b) is effectively implemented and maintained.

### 9.2.2 Internal audit process

The organization shall:

- a) plan, establish, implement and maintain an audit programme(s) including the frequency, methods, responsibilities, consultation, planning requirements and reporting, which shall take into consideration the importance of the processes concerned and the results of previous audits, as well as:
  - 1) significant changes impacting the organization;
  - 2) performance evaluation and improvement results (see Clauses 9 and 10);
  - 3) significant OH&S risks, risks and OH&S opportunities;
- b) define the audit criteria and scope for each audit;
- c) select competent auditors and conduct audits to ensure objectivity and the impartiality of the audit process;
- d) ensure that the results of the audits are reported to relevant management;
- e) ensure that relevant audit findings are reported to relevant workers, and where they exist, workers' representatives, and relevant interested parties;
- f) take appropriate action to address nonconformities (see 10.1) and continually improve its OH&S performance (see 10.2);

- g) retain documented information as evidence of the implementation of the audit programme and the audit results.

NOTE For more information on auditing, refer to ISO 19011 Guidelines for auditing management systems.

### 9.3 Management review

Top management shall review the organization's OH&S management system at planned intervals to ensure its continuing suitability, adequacy and effectiveness.

The management review shall include consideration of:

- a) the status of actions from previous management reviews;
- b) changes in external and internal issues that are relevant to the OH&S management system including:
  - 1) applicable legal requirements and other requirements;
  - 2) the organization's OH&S risks, risks and OH&S opportunities;
- c) the extent to which the OH&S policy and the OH&S objectives have been met;
- d) information on the OH&S performance, including trends in:
  - 1) incidents, nonconformities, corrective actions and continual improvement;
  - 2) worker participation and the outputs of consultation;
  - 3) monitoring and measurement results;
  - 4) audit results;
  - 5) results of evaluation of compliance;
  - 6) OH&S risks, risks and OH&S opportunities;
- e) relevant communication(s) with interested parties;
- f) opportunities for continual improvement;
- g) adequacy of resources for maintaining an effective OH&S management system.

The outputs of the management review shall include decisions related to:

- conclusions on the continuing suitability, adequacy and effectiveness of the OH&S management system;
- continual improvement opportunities;
- any need for changes to the OH&S management system, including resources needed;
- actions needed, when objectives have not been met.

The organization shall communicate the relevant outputs of the management review to its relevant workers, and where they exist, workers' representatives (see 7.4.).

The organization shall retain documented information as evidence of the results of management reviews.

## 10 Improvement

### 10.1 Incident, nonconformity and corrective action

The organization shall plan, establish, implement and maintain a process to manage incidents and nonconformities including reporting, investigating and taking action.

When an incident or a nonconformity occurs, the organization shall:

- a) react in a timely manner to the incident or nonconformity, and, as applicable:
  - 1) take direct action to control and correct it;
  - 2) deal with the consequences;
- b) evaluate, with the participation of workers (see 5.4) and the involvement of other relevant interested parties, the need for corrective action to eliminate the root cause(s) of the incident or nonconformity, in order that it does not recur or occur elsewhere, by:
  - 1) reviewing the incident or nonconformity;
  - 2) determining causes of the incident or nonconformity;
  - 3) determining if similar incidents, nonconformities, exist, or could potentially occur;
- c) review the assessment of OH&S risks and risks, as appropriate (see 6.1);
- d) determine and implement any action needed, including corrective action, in accordance with the hierarchy of controls (see 8.1.2) and the management of change (see 8.2);
- e) review the effectiveness of any corrective action taken;
- f) make changes to the OH&S management system, if necessary.

Corrective actions shall be appropriate to the effects or potential effects of the incidents or nonconformities encountered.

The organization shall retain documented information as evidence of:

- the nature of the incidents or nonconformities and any subsequent actions taken;
- the results of any corrective action, including the effectiveness of the actions taken.

The organization shall communicate this documented information to relevant workers, and where they exist, workers' representatives, and relevant interested parties.

**NOTE** The reporting and investigation of incidents without delay can assist in the removal of hazards and in minimizing associated OH&S risks.

## **10.2 Continual improvement**

### **10.2.1 Continual improvement objectives**

The organization shall continually improve the suitability, adequacy and effectiveness of the OH&S management system to:

- a) prevent occurrence of incidents and nonconformities;
- b) promote a positive occupational health and safety culture;
- c) enhance OH&S performance.

The organization shall ensure the participation of workers, as appropriate, in the implementation of its continual improvement objectives.

### **10.2.2 Continual improvement process**

The organization shall plan, establish, implement and maintain a continual improvement process(es), which takes into account the outputs of the activities described in this International Standard.

The organization shall communicate the results of continual improvement to its relevant workers, and where they exist, workers' representatives.

The organization shall retain documented information as evidence of the results of continual improvement.

## **Annex A** **(informative)**

### **Guidance on the use of this International Standard**

#### **A.1 General**

The explanatory information given in this annex is intended to prevent misinterpretation of the requirements contained in this International Standard. While this information addresses and is consistent with these requirements, it is not intended to add to, subtract from, or in any way modify them.

The requirements in this International Standard need to be viewed from a systems perspective and should not be taken in isolation, i.e. there can be an interrelationship between the requirements in a clause with the requirements in other clauses.

#### **A.2 Normative references**

There are no normative references in this International Standard. Users can refer to the documents listed in the Bibliography for further information.

#### **A.3 Terms and definitions**

In addition to the terms and definitions given in Clause 3, and in order to avoid misunderstanding clarifications of selected concepts are provided below.

- "Continual" indicates duration that occurs over a period of time, but with intervals of interruption (unlike "continuous" which indicates duration without interruption). 'Continual' is therefore the appropriate word to use in the context of improvement.
- The word "consider" means it is necessary to think about but can be rejected, whereas "take into account" means it is necessary to think about but cannot be rejected.
- The words "appropriate" and "applicable" are not interchangeable. "Appropriate" means suitable (for, to) and implies some degree of freedom, while "applicable" means relevant or possible to apply and implies that if it can be done, it shall be done.
- This International Standard uses the term "interested party", the term "stakeholder" is a synonym as it represents the same concept.
- The word "ensure" means the responsibility can be delegated, but not the accountability to make sure that it is performed.
- "Documented information" is used to include both documents and records. This International Standard uses the phrase "retain documented information as evidence of..." to mean records, and 'shall be available as documented information' to mean documents, including procedures. The phrase "to retain documented information as evidence of..." is not intended to require that the information retained will meet legal evidentiary requirements. Instead, it is intended to define the type of records that need to be retained.

Organizations can be subject to requirements related to the OH&S management system that mandate the use of specific terms and their meaning. If these other terms are used, conformity to this International Standard is still required.

## **A.4 Context of the organization**

### **A.4.1 Understanding the context of the organization**

The intent of this clause is for the organization to obtain an understanding of the issues, positive and negative, that the organization needs to consider in establishing its OH&S management system.

The issues of interest are those that affect or could affect the organization's ability to achieve the intended outcomes. Issues can include conditions, characteristics or changing circumstances that can affect the OH&S management system, for example:

- a) external context issues, such as:
  - 1) the cultural, social, political, legal, financial, technological, economic and natural surroundings and market competition, whether international, national, regional or local;
  - 2) introduction of new competitors, contractors, suppliers, partners and providers, new technologies, new laws and the emergence of new occupations;
  - 3) key drivers and trends relevant to the industry or sector having impact on the organization;
  - 4) relationships with, and perceptions and values of, its external interested parties;
  - 5) changes in relation to any of the above.
- b) internal context issues, such as:
  - 1) governance, organizational structure, roles and accountabilities;
  - 2) policies, objectives and the strategies that are in place to achieve them;
  - 3) the capabilities, understood in terms of resources, knowledge and competence (for example capital, time, human resources, processes, systems and technologies);
  - 4) information systems, information flows and decision-making processes (both formal and informal);
  - 5) introduction of new products, services, new tools, new software, new premises and equipment;
  - 6) relationships with, and perceptions and values of workers;
  - 7) the culture in the organization (see A.5.1);
  - 8) standards, guidelines and models adopted by the organization;
  - 9) the form and extent of contractual relationships, including for example outsourced activities;
  - 10) working time arrangements;
  - 11) changes in relation to any of the above.

An understanding of the context of an organization is used to establish, implement, maintain and continually improve its OH&S management system (see 4.4), especially in the establishment of its OH&S policy (see 5.2) and the setting of its OH&S objectives (see 6.2.1).

The internal and external issues that are determined in 4.1 can result in risks and opportunities to the organization or to the OH&S management system (see 6.1.1 to 6.1.3). The organization determines those that need to be addressed and managed (see 6.1.4, 6.2, Clause 7, Clause 8 and 9.1).

#### **A.4.2 Understanding the needs and expectations of workers and other interested parties**

An organization is expected to gain a general understanding of the expressed needs and expectations of the internal and external interested parties that have been determined by the organization to be relevant.

The organization should determine the needs and expectations of both managerial and non-managerial workers, and where they exist, workers' representatives, that can affect the OH&S management system, or which perceive themselves to be affected by it.

Other interested parties to an OH&S management system can include:

- a) legal and regulatory authorities (local, regional, state/provincial, national or international);
- b) parent organizations;
- c) suppliers, contractors and subcontractors;
- d) workers' organizations (trade unions) and employers' organizations;
- e) owners, shareholders, clients, visitors, local community and neighbours of the organization and the general public;
- f) customers, medical and other community services, media, academia, business associations and non-governmental organizations (NGOs);
- g) occupational health and safety organizations and occupational safety and health-care professionals (for example doctors and nurses).

Interested party needs and expectations are not necessarily requirements of the organization. It is important to distinguish between these needs and requirements such as:

- mandatory requirements: laws, regulations, corporate requirements, provisions of the organization's collective agreements that relate to the health and safety of workers where they are given legal effect;
- commitment requirements: voluntary commitments to interested parties to which the organization voluntarily subscribes. It also includes rules, guides and technical references;
- other requirements to which the organization voluntarily subscribes that relate to the OH&S management system.

Needs and expectations from interested parties become obligatory requirements for an organization if that organization chooses to adopt them. Once the organization adopts them, then they become requirements and should be considered when planning and establishing the OH&S management system.

### **A.4.3 Scope of the OH&S management system**

The scope of the OH&S management system is intended to clarify the boundaries to which the organization's system will apply, especially if the organization is a part of a larger organization at a given location. An organization has the freedom and flexibility to define its boundaries taking into account its work related activities. It may choose to implement this International Standard with respect to the entire organization, or to (a) specific part(s) of the organization, as long as the top management of that part of the organization has its own functions, responsibilities and authorities for establishing an OH&S management system.

When determining the scope, the credibility of the organization's OH&S management system will depend upon the choice of the boundaries. It should be noted that 4.3 requires that the organization take into account its activities, products or services that are within its control or influence that can impact on its OH&S performance.

The scope should be factual and representative of the organization's operations included within its OH&S management system boundaries so that it does not mislead interested parties.

The scope should address hazards and potential OH&S risks to persons in the organization and furthermore consider its impacts on persons, outsourced or subcontracted, carrying out activities or producing products or delivering services for the organization or on its behalf.

### **A.4.4 OH&S management system**

The organization retains authority, accountability, and autonomy, to decide how it will fulfil the requirements of this International Standard, including the level of detail and extent to which it will:

- a) integrate requirements of the OH&S management system into its various business operations, such as design & development, procurement, human resources, sales and marketing, etc.;
- b) incorporate the issues associated with its context (4.1), its interested party requirements (4.2) and the scope (4.3) of its OH&S management system.

If this International Standard is implemented for a specific part(s) of an organization, the policies and processes developed by other parts of the organization can be used to meet the requirements of this International Standard, provided that they are applicable to the specific part(s) that will be subject to them and that they comply with the requirements of this International Standard.

Examples of these processes could be:

- corporate OH&S policies;
- document management system;
- competency programmes;
- procurement controls, etc.

## A.5 Leadership and worker participation

### A.5.1 Leadership and commitment

Commitment, awareness, responsiveness, active support and feedback from the organization's top management are critical for the success of the OH&S management system and therefore they have specific responsibilities for which they need to be personally involved or which they need to direct. To achieve improved acceptance and implementation of OH&S management system processes, leadership includes communicating the requirements of "what" needs to be done and "why" it should be done. It is also important to ensure that the intended outcomes are achieved.

Top management should develop, lead and promote a culture in the organization that supports the OH&S management system and which encourages workers, and where they exist, workers' representatives, to actively participate in the OH&S management system, as well as the involvement of relevant interested parties. This is a key factor in the establishment and implementation of an effective OH&S management system and an occupational health and safety culture.

An organization's occupational health and safety culture is largely determined by top management and is the product of individual and group values, attitudes, perceptions, competencies and patterns of activities that determine the commitment to, and the style and proficiency of, its OH&S management system.

An occupational health and safety culture that supports an organization's OH&S management system is characterized by communications founded on mutual trust, by shared perceptions of the importance of the OH&S management system and by confidence in the effectiveness of preventive measures. An organization with such a culture is sometimes denoted as a "learning" organization. In the context of occupational health and safety, learning organizations encourage a culture where people at all levels of the organization continually expand their capacity to understand how work activities, and the way in which they are organized, impact OH&S performance.

Cooperation between managers, workers, and where they exist, workers' representatives, is an essential element of workplace-related prevention measures.

OH&S management system deficiencies can include, but are not limited to:

- a) poor feedback and communication processes;
- b) excessive workloads;
- c) budget constraints;
- d) deficient work coordination;
- e) inadequate supervision, etc.

The organization should identify and address such deficiencies to improve its OH&S management system.

Identifying hazards, reducing risk, and a focus on compliance, will not in itself create or maintain an effective OH&S management system.

### A.5.2 Policy

The OH&S policy is a set of principles stated as commitments in which top management outlines the long-term direction of the organization to support and continually improve its OH&S performance. The OH&S policy provides an overall sense of direction, provides a framework for the organization to set its objectives and take actions to achieve the intended outcomes of the OH&S management system.

Five basic commitments for the OH&S policy are specified in this International Standard to:

- a) provide safe and healthy working conditions for the prevention of work-related injury and ill health;
- b) satisfy applicable legal requirements and other requirements;
- c) control OH&S risks using the hierarchy of controls (see 8.1.2);
- d) the continual improvement of the OH&S management system (see 10.2) to enhance the organization's OH&S performance;
- e) participation.

These commitments are then reflected in the processes an organization establishes to address specific requirements in this International Standard, to ensure a robust, credible and reliable OH&S management system.

The OH&S policy should be established by the top management after having taken into account:

- a) OH&S opportunities;
- b) the needs and expectations of workers, and where they exist, workers' representatives, and other relevant interested parties;
- c) applicable legal requirements and other requirements to which the organization subscribes.

The organization's OH&S policy should be appropriate to the nature and scale of its identified OH&S risks and OH&S opportunities and should be realistic. In developing its OH&S policy, an organization should consider its coordination with other policies.

While all the commitments are important, some interested parties are especially concerned with the organization's commitment to fulfil its applicable legal requirements. This International Standard specifies a number of interconnected requirements related to this commitment. These include the need to:

- determine the applicable legal requirements;
- ensure operations are carried out in accordance with these legal requirements;
- evaluate fulfilment of the legal requirements;
- correct nonconformities.

### A.5.3 Organizational roles, responsibilities, accountabilities and authorities

Top management has overall OH&S management system responsibility, accountability and authority for the protection of workers' safety and health. Workers, in the course of performing their work, should co-

operate with top management, middle-management and supervisors in fulfilling those responsibilities. Every person in the workplace needs to consider not only his or her own health and safety, but also the health and safety of others.

Accountability means ultimate responsibility and relates to the person who is held to account if something is not done, is not done properly, does not work or fails to achieve its objective.

OH&S management system responsibilities should be assigned in appropriate areas of the organization, such as operational management (e.g. design, maintenance, manufacturing) or other staff functions (e.g. middle-management and supervisors). The responsibilities, accountabilities and authorities should be reviewed when a change in structure of the organization occurs.

Workers, when assuming responsibility for those aspects of the OH&S management system over which they have control should be entitled to report about dangerous situations so that action can be taken. They should be able to report concerns to responsible authorities as required without the threat of dismissal, disciplinary action or other such reprisals.

Top management may assign the responsibility and authority for ensuring that the OH&S management system conforms to the requirements of this International Standard and for reporting on the performance of the OH&S management system, to an individual (sometimes referred to as the 'management representative'), to a member of top management, or to several individuals.

Workers should have sufficient competency and authority to remove themselves from hazardous situations as necessary, without fear of reprisals.

#### **A.5.4 Participation and consultation**

The participation of workers, and where they exist, workers' representatives, is a key factor of success for an OH&S management system.

The top management of the organization should encourage the participation of workers, and where they exist, workers' representatives, in the development, implementation and maintenance of the OH&S management system. This should include the receipt of suggestions for the improvement of the OH&S management system, which can lead to improvements in the organization's OH&S performance.

NOTE 1 The ILO's ILS recommend that the processes for the receipt of suggestions are more effective if workers do not fear the threat of dismissal, disciplinary action, or other such reprisals, when making them.

The process of consultation can include two-way communications. For example, workers nearest to OH&S risks, and where they exist, workers' representatives, can be asked about decisions to be taken to control those OH&S risks, so they can give their opinions about them.

The participation of workers is a process of cooperation between managers and non-managers, and where they exist, workers' representatives, in order to contribute to decision-making processes on OH&S performance measures and proposed changes.

Means of encouraging cooperation and the participation of workers, and where they exist, workers' representatives, in order to assist them in exercising their functions in the OH&S management system and avoiding barriers, can include:

- a) the provision of information and communication regarding the scope and objectives of the OH&S management system;

- b) the provision of operational information and training on identified hazards, hazard elimination and control strategies, and residual risks assessments;
- c) creating awareness of hazards and OH&S risks;
- d) improving competency;
- e) access to other workers for the purpose of communicating about health and safety issues;
- f) the provision of adequate time and resources to accomplish the items from bullets a) to c);

NOTE 2 The ILO's ILS recommend that time for the items in bullets a) to e) should be permitted during working hours.

- g) the provision of mechanisms to foster, promote and enable effective cooperation between managers and non-managers, e.g. workers' safety delegates, workers' health and safety committees, or joint health and safety committees, as well as provision for the selection of representatives (through worker or union organizations) in accordance with applicable legal requirements and other requirements;
- h) providing protection from dismissal or reprisals, including disciplinary or other adverse measures, for reporting, or removing themselves from situations of serious danger or imminent harm;
- i) creating and maintaining a culture in the organization that supports the OH&S management system.

Removing barriers to participation, or reducing them to a minimum when removal is not possible, is essential if the OH&S management system is to be effective.

Feedback in the OH&S management system is dependent upon worker participation. The organization should ensure workers at all levels are encouraged to report hazardous situations, so that preventive measures can be put in place and corrective action taken.

NOTE 3 The ILO's ILS recommend that workers should be empowered to report their concerns about hazardous situations to responsible external authorities.

## **A.6 Planning**

### **A.6.1 Actions to address risks and opportunities**

#### **A.6.1.1 General**

The purpose of planning in the OH&S management system is to prevent undesired effects (such as lack of application of legal requirements, damage to reputation, work-related injury and ill health), by anticipating hazardous events and their likelihood and consequences, and applying appropriate risk controls, in order to achieve the intended outcomes. It also identifies opportunities that can offer a potential advantage or beneficial outcome, such as improved OH&S performance.

Planning is not a single event but an on-going process, anticipating changing circumstances and continually identifying risks and opportunities, both for the workers as individuals and for the organization. When planning the organization's OH&S management system, the context (see 4.1) in which it will operate, the views of its workers and other interested parties (see 4.2) and its scope (see 4.3) should be considered. An initial review or gap analysis may be conducted when planning for the OH&S management system; the output from such a review can be used in the planning process.

This International Standard requires the organization to identify hazards and assess its OH&S risks (see 6.1.2.3) and identify its OH&S opportunities (see 6.1.2.4), determine its applicable legal requirements and other requirements (see 6.1.3), and to assess other risks (see 6.1.2.3) and identify other opportunities (see 6.1.2.4) to the OH&S management system. This information is then used to determine how the risks and opportunities should be managed (see 6.1.4). Planning also includes determining how to incorporate the actions deemed necessary or beneficial into the OH&S management system through objective setting (see 6.2), operational control (see 8.1) or other parts of the OH&S management system, for example, resource provisions (see 7.1) and competence (see 7.2). The mechanism for evaluating the effectiveness of the preventive and protective measures should also be planned and should include monitoring and measurement techniques (see 9.1), internal audit (see 9.2) and management review (see 9.3).

Changes can present both risks to workers, and opportunities to improve the performance of the OH&S management system, and need to be carefully planned before being implemented (see 8.2).

Documented information (such as for the identification of workplace hazards, the assessment of OH&S risks and identification of OH&S opportunities) assists in demonstrating and maintaining the planning process. The processes established and the outcome of the implementation of these processes (see 6.1.2.2, 6.1.2.3 and 6.1.2.4) should be maintained as documented information by the organization, to facilitate internal and external communication of these processes and their outcomes. Documented information as described above can be used when planning and conducting internal and external audits.

## **A.6.1.2 Hazard identification and assessment of OH&S risks**

### **A.6.1.2.1 Hazard identification**

The process for hazard identification should begin at the conceptual design stage of any new workplace, facility, product or organization. It should continue as design is detailed and then comes into operation, and then be on-going during its full lifecycle to reflect current, changing and future activities. This can include inputs from the review and analysis of data; reports of past incidents, work-related injuries or ill health; and complaints, from both inside and outside the organization.

The hazard identification process helps the organization recognize and understand the hazards in the workplace and to workers, in order to assess, prioritize, and eliminate or reduce, the OH&S risks as low as reasonably practicable.

Hazard identification should proactively identify any source or situation (or combination of these), arising from an organization's activities, with a potential for work-related injury and ill health.

Sources and situations can include, but are not limited to:

- sources: hazardous substances, radiation, temperature, pressure, dust, noise and vibration;
- situations: working at heights, working in confined spaces, working alone, worker fatigue, aggressive behaviour or harassment, workload and task control.

Hazards can be categorised in many ways including: physical, chemical, biological, psychosocial, physiological; or mechanical and electrical; or based on movement and energy.

In carrying out its identification of hazards the organization should consider all of the categories detailed in the requirements; however, the lists provided in 6.1.2.1 are not exhaustive and it is always the responsibility of the organization to have an on-going process which identifies all hazards.

The organization's hazard identification process should consider:

a) Routine and non-routine activities and situations:

- 1) Routine activities and situations create hazards through day-to-day operations and normal work processes. Non-routine activities and situations are occasional or unplanned, short-term or long-term, and can create hazards through incidents; these include reasonably foreseeable situations such as: extended work hours, or exceptional shift work, an incident involving a small oil leak, repair, disruption to utility services (e.g. water, gas, electricity or sewage), or temporary relocation of facilities.
- 2) Physical conditions can cause hazards at the work location and include, for example, lighting, ambient temperature, humidity and surrounding noise, proximity to other workers, or the condition of work surfaces.
- 3) Human factors refers to such things as capabilities and limitations, skill levels and competence needs, differing levels of literacy or language fluency, familiarity with the site or activity and other considerations such as ergonomics or individual actual or potential behaviours. An organization should look at the underlying causes when considering human factors that contribute to risks and hazards, such as contradictory instructions or lack of information, management condoning unsafe behaviour, age-related behaviour, fear of reporting incidents or concerns. Human capabilities such as physical stature, pregnancy or physical or mental impairment should also be considered.

b) Emergency situations:

These are unplanned or unscheduled situations that require an immediate response, for example a machine catching fire in the workplace, or a natural disaster in the vicinity of the workplace or at another location where workers are performing work-related activities. It also includes situations such as civil unrest at a location at which workers are performing work-related activities, which requires their urgent evacuation.

c) People:

The reference to people is intended to direct the organization to consider all those who can be directly affected by the organization's activities:

- 1) within the workplace;
- 2) in the vicinity of the workplace; e.g. passers-by, contractors, or immediate neighbours, who could be affected by the activities of the organization;
- 3) workers at a location not under the direct control of the organization, e.g. mobile workers (for example a postman or a bus driver); those workers who travel to perform work-related activities at another location (for example service engineers travelling to and working at a customer's site); home-based workers, or those who work alone.

d) Other issues:

- 1) Hazards can be created through poor design, for example a machine which cannot be cleaned or maintained without working at an unsafe height, or requiring work in an unsafe position or in a confined space.

- 2) Situations can occur in the vicinity of the workplace that present hazards, such as within multi-organization worksites, where the activities of any one of the organizations could cause work-related injury and ill health to persons doing work for another organization on the worksite.
- 3) Situations not controlled by the organization and occurring in the vicinity of the workplace can cause injury and ill health to persons in the workplace, for example a fire or explosion in an adjacent property or a nearby public protest which escalates into civil disobedience.

e) Changes in an organization:

Hazards can arise from changes in an organization. These include a reduction in the number of workers, an increase of unskilled trainees, inadequate succession planning, unfamiliar or ageing equipment, temporary loss of facilities due to routine maintenance or emergency repair. The organization should also consider hazards created by the introduction of new materials, technologies or processes.

f) Changes in knowledge of, and information about, hazards:

Sources of knowledge and information about hazards can include published literature, research and development, feedback from workers, and review of the organization's own operational experience. These sources can provide new information about the hazards and risks, including changes in: potential exposures; chemical, biological and physical properties; associated toxicity and epidemiological information.

g) Previous incidents:

Previous incidents and their causes, both within the organization and in other organizations, locations or situations, should be considered when identifying hazards.

h) How work is organized or social factors:

How work is organized and social factors can include, for example, excessive work hours, poor leadership and culture in the organization, poor communication, excessive production pressure, bullying, harassment or substance misuse.

This International Standard does not address product safety (that is, safety to end-users of products manufactured by the organization), however hazards to workers occurring during manufacture, construction, assembly or testing of products should be considered.

#### **A.6.1.2.2 Assessment of OH&S risks and other risks to the OH&S management system**

An organization can use different methods to assess OH&S risks as part of its overall strategy for addressing different hazards or activities. Each method should be appropriate to the OH&S risks being considered. The complexity of assessment does not depend on the size of the organization but on the hazards associated with the activities of the organization.

The assessment(s) provides an understanding of the OH&S risks and their current controls, and enables the organization to identify appropriate control actions.

The purpose of the organization's OH&S management system should be to achieve safe and healthy working conditions with a residual OH&S risk which is as low as reasonably practicable ("residual OH&S risk" is the OH&S risk remaining after appropriate preventive and protective measures have been taken.)

The organization should also give consideration to those risks which are not directly related to the health and safety of people and address factors affecting the OH&S management system, its performance and intended outcomes. These risks should be assessed using an appropriate method.

Potential sources of risk to the OH&S management system can include:

- a) inappropriate context analysis; outdated analysis;
- b) inadequate consideration of OH&S management system requirements, change management and other health and safety issues in strategic planning and other business processes;
- c) the absence of resources for the OH&S management system, whether financial, human or other;
- d) an ineffective audit programme;
- e) poor succession planning for key OH&S management system roles;
- f) poor top management engagement in the OH&S management system activities;
- g) failure to address the needs and expectations of relevant interested parties;
- h) poor OH&S performance leading to reputational risks.

#### **A.6.1.2.3 Identification of OH&S opportunities and other opportunities**

OH&S opportunities to improve occupational health and safety include:

- a) eliminating hazards and reducing risks by integrating occupational health and safety at the earliest stage of the lifecycle of facilities, equipment or processes or moving up the hierarchy of controls;
- b) improving OH&S performance during planned changes, such as facilities relocation, process re-design or replacement of machinery and plant;
- c) improve OH&S performance by alleviating monotonous work or work at a pre-determined work rate;
- d) using new technologies to improve OH&S performance;
- e) improving the occupational health and safety culture by extending competence related to occupational health and safety beyond requirements or encouraging workers to report incidents in a timely manner.

Opportunities to improve the OH&S management system can include:

- improving the visibility of top management's support for the OH&S management system;
- enhancing incident investigation processes;
- improving the processes for worker participation;
- benchmarking, including consideration of both the organization's own past performance and that of other organizations;
- collaborating in forums which focus on topics dealing with health and safety.

### A.6.1.3 Determination of applicable legal requirements and other requirements

The applicability of legal requirements and other requirements can be based on the hazards and OH&S risks related to an organization's activities. These can include:

- a) legal requirements, such as:
  - 1) legislation (national, regional or international), including statutes, regulations and codes of practice;
  - 2) decrees and directives;
  - 3) orders issued by regulators;
  - 4) permits, licences or other forms of authorization;
  - 5) judgements of courts or administrative tribunals;
  - 6) treaties, conventions, protocols, collective bargaining agreements.
- b) other requirements, such as:
  - 1) the organization's requirements;
  - 2) contractual conditions;
  - 3) agreements with employees;
  - 4) agreements with interested parties;
  - 5) agreements with health authorities;
  - 6) non-regulatory standards, consensus standards and guidelines;
  - 7) voluntary principles, codes of practice, technical specifications, charters;
  - 8) public commitments of the organization or its parent organization.

### A.6.1.4 Planning to take action

The actions planned to address the risks and opportunities identified may be managed through the OH&S management system or through other business processes, such as those for business continuity, risks, financial or human resource management, or a combination of these. Equally, the effectiveness of the actions taken may be measured through the OH&S management system or through other processes.

When the assessment of risks has identified the need for controls, the planning activity determines how these are implemented in operation (see Clause 8); for example, determining whether to incorporate these controls into work instructions or into actions to improve competence. Other controls can take the form of measuring or monitoring (see Clause 9).

Actions to address opportunities should be considered under the management of change (see 8.2), to ensure there are no resulting unintended consequences.

## **A.6.2 OH&S objectives and planning to achieve them**

### **A.6.2.1 OH&S objectives**

Objectives are established to maintain and improve OH&S performance. This includes reducing risks, improving health, or improving the OH&S management system's processes. Objectives may also be set to improve the well-being of workers, if this is in the scope of the organization's OH&S management system.

The objectives should be linked to the OH&S risks, opportunities and performance criteria which the organization has identified as having the highest priority for the achievement of the intended outcomes of the OH&S management system. Once a level of performance has been achieved and no further improvement is practicable, an objective may be set to maintain that level of performance pending new opportunities.

OH&S objectives can be integrated with other business objectives and should be set at relevant functions and levels. Objectives can be strategic, tactical and operational, and should be set to achieve the intended outcomes of the OH&S management system:

- a) strategic objectives can be set to improve the overall performance of the OH&S management system, for example reduce noise exposure;
- b) tactical objectives can be set at project or process level, for example reduce noise at source;
- c) operational objectives can be set at the activity level, for example enclosure of individual machines to reduce noise.

The measurement of OH&S objectives can be qualitative or quantitative. Qualitative measures are approximations such as those obtained from surveys, interviews and observations. The organization is not required to establish OH&S objectives for each of the risks it determines or identifies.

### **A.6.2.2 Planning to achieve OH&S objectives**

The organization can plan to achieve objectives individually or collectively.

The organization might need to develop more formal project plans for complex objectives with multiple tasks. In considering the means necessary for such planning, the organization should examine the resources required (financial, human, equipment, infrastructure) for the tasks to be performed. The organization should assign responsibility and completion dates for individual tasks to ensure that the objective can be accomplished within the overall timeframe.

When practicable, each objective should be associated with an indicator which can be strategic, tactical and operational (see also A6.2.1 and A.9.1.2).

## **A.7 Support**

### **A.7.1 Resources**

Resources include human resources, natural resources, infrastructure, technology, and financial resources.

Human resources include demography, diversity, skills and knowledge.

In considering the need for resources the organization should determine the need for preventive and protective measures (see 8.1.2) and the competence needed as part of a job requirement.

Infrastructure includes the organization's buildings, plant, equipment, utilities, information technology and communications systems, emergency containment systems, etc.

### A.7.2 Competence

The competence of workers should include the knowledge and skills needed to appropriately address the hazards and OH&S risks associated with their work and workplace.

In determining the criteria of the competence for each role an organization should take into account such things as:

- a) the education, training, qualification and experience necessary to undertake the role and re-training necessary to maintain competence;
- b) the work environment in which they will be working;
- c) the hazards identified and associated OH&S risks;
- d) the preventive and control measures resulting from the risk assessment process;
- e) requirements applicable to the OH&S management system;
- f) the rights and responsibilities of persons based upon legal requirements and other requirements;
- g) the importance of compliance with the OH&S policy;
- h) the potential consequences of compliance and noncompliance, including the impact on occupational health and safety;
- i) the value of their participation in the OH&S management system;
- j) the duties and responsibilities associated with the roles;
- k) individual capabilities, including experience, language skills, literacy and diversity;
- l) the relevant updating of the competencies made necessary by context or work changes.

Workers, and where they exist, workers' representatives, can assist in both identifying competencies and developing processes to achieve them.

**NOTE** The ILO's ILS recommend that an organisation should provide training in matters related to occupational health and safety to workers at no cost to themselves.

Workers should be evaluated periodically to ensure that they meet the necessary competence criteria for their roles and, where appropriate, gaps in their competence should be filled by providing additional education, training and experience. An evaluation of their competence should also be carried out whenever there are planned changes that can impact upon the activities undertaken in their roles.

Top management, other managers, and workers should have common understanding on what situations constitute conditions to be considered to pose imminent and serious dangers with clear examples. Workers should have sufficient competency and authority to remove themselves from situations of imminent and serious danger.

As appropriate, workers' representatives should receive the training required to enable them to carry out their representative functions effectively.

Contracting and re-assignment could be used, for example when workers need to have very specific competencies, such as for asbestos removal, radio-protection, etc.

### **A.7.3 Awareness**

To ensure they work or act in safe and healthy conditions, the organization should make workers sufficiently knowledgeable of:

- a) actions to take in emergency situations;
- b) the consequences of individual actions and behaviour in relation to OH&S risks;
- c) the benefits of improved OH&S performance;
- d) the need to conform to OH&S policies and established working practices and the potential consequences of departing from requirements of the OH&S management system.

Awareness programmes should be provided for contractors, temporary workers and visitors, etc., according to the OH&S risks to which they are exposed.

### **A.7.4 Information and communication**

The communication processes established by the organization should provide for the flow of information upwards, downwards and across the organization. It should provide for both the gathering and the dissemination of information. It should ensure that pertinent information is provided, received and understood by all relevant workers and interested parties.

When determining the need for communication with external interested parties, the organization should consider both its normal operations and potential emergency situations; often external communication processes include the identification of designated contact individuals and contact numbers. This allows for appropriate information to be communicated in a consistent manner and can be especially important in emergency situations where regular updates are requested and a wide range of questions need to be answered.

### **A.7.5 Documented information**

It is important to keep the level of complexity of the documented information at the minimum level possible to ensure effectiveness, efficiency and simplicity at the same time.

This should include documented information on applicable legal requirements and other requirements and on the results of evaluations of compliance.

The actions described in 7.5.3 are particularly aimed at preventing the risk of unintended use of obsolete documented information.

The control of documented information should not have the effect of, nor be for the purpose of, preventing workers from obtaining a full and complete picture of the hazards and risks of their work.

The confidentiality of personal information of individuals should be respected.

## A.8 Operation

### A.8.1 Operational planning and controls

#### A.8.1.1 General

Operational planning and controls should be established and implemented as necessary to enhance occupational health and safety, eliminate hazards or, if impossible, to reduce the OH&S risks to levels as low as reasonably practicable for operational areas and activities.

When planning and developing operational controls, priority should be given to control options with higher reliability in preventing work-related injury and ill health. Operational controls can use a variety of different methods, for example:

- a) the introduction of procedures and systems of work;
- b) ensuring the competency of workers;
- c) establishing preventive / predictive maintenance and inspection programmes;
- d) specifications for the procurement of goods and services;
- e) compliance with preventive regulations and manufacturer's instructions for equipment;
- f) engineering controls (physical devices such as barriers) followed by administrative controls (warnings, safety signs, alarms and signals, or access control procedures and other work instructions).
- g) adapt work to workers.

Work can be adapted to workers by, e.g.:

- defining, or redefining, how it is organized;
- the induction of new recruits;
- defining, or redefining, processes and working environments to workers;
- designing a new workplace and new equipment by using ergonomic approaches, etc.

The OH&S management system's processes and activities should be established to ensure that operational controls are implemented effectively (see 9.1.1), and actions taken to mitigate issues or determined nonconformities (see 10.1).

#### A.8.1.2 Hierarchy of controls

The hierarchy of controls is intended to provide a systematic approach to enhance occupational health and safety, eliminate hazards, and reduce or control OH&S risks. Each step is considered less effective than the one before it. It is usual to combine several steps in order to succeed in reducing the OH&S risks to a level that is as low as reasonably practicable.

The following examples are given to illustrate measures that can be implemented at each level:

- a) hazard elimination: avoiding risks, adapting work to workers, e.g. : integrate health, safety and ergonomics when planning new workplaces; create physical separation of traffic between pedestrians and vehicles;
- b) substitution: replacing the dangerous by the non-dangerous, or the less dangerous; combating the risks at source; adapting to technical progress, e.g. : replacing solvent based paint by water based paint;
- c) engineering controls: implement collective protective measures, e.g. : isolation; machine guarding; ventilation systems; mechanical handling; noise reduction; protecting against falls from height by using guard rails;
- d) administrative controls: giving appropriate instructions to workers, e.g.: lock out processes; periodical safety equipment inspections; health and safety coordination with subcontractors' activities; induction; forklift driving licenses; rotation of workers;
- e) personal protective equipment (PPE) : provide adequate PPE, and instructions for PPE utilization and maintenance, e.g. : safety shoes; safety glasses; hearing protection; chemical and liquid resistant gloves; electrical protection gloves; cutting resistant gloves.

### **A.8.2 Management of change**

The objective of a management of change process is to enhance occupational health and safety at work, by minimizing the introduction of new hazards and OH&S risks into the work environment as changes occur, such as in technology, equipment, facilities, work practices and procedures, design specifications, raw materials, staffing changes, and standards or regulations. Depending on the nature of an expected change, the organization should use an appropriate methodology(ies) for assessing the OH&S risks and the OH&S opportunities of the change. The need to manage change can be an outcome of the planning process (see 6.1.4).

The organization should plan how to implement a change in a manner that does not introduce new (unforeseen) hazards (see 6.1.4) or increase the OH&S risks. Additionally, the organization should use this process to find OH&S opportunities, such as less hazardous and/or toxic alternatives in order to continue to reduce the OH&S risks to workers and/or others who are responsible for handling or working with the products, materials, etc.

The organization should specify and assign adequate resources for the implementation of a change.

As part of the change management process, the organization should review potential changes to hazards and OH&S risks (see 6.1). The implementation of a decision to change should ensure that all affected workers are properly informed and are competent to cope with the change.

### **A.8.3 Outsourcing**

An outsourced process is one that fulfils all of the following:

- a) it is within the scope of the OH&S management system;
- b) it is integral to the organization's functioning;
- c) it is needed for the OH&S management system to achieve its intended outcome;
- d) liability for conforming to requirements is retained by the organization;

- e) the organization and the external provider have a relationship where the process is perceived by interested parties as being carried out by the organization.

#### **A.8.4 Procurement**

Prior to procuring goods and services, the organization should identify appropriate procurement controls. The procurement controls should be used to identify and evaluate potential OH&S risks associated with e. g. products, hazardous materials or substances, raw materials, equipment, or services before their introduction into the workplace. Considerations could include requirements for supplies, equipment, raw materials, and other goods and related services purchased by the organization to conform to the organization's OH&S objectives and its need for information, participation and communication (see 7.4).

The organization should verify that equipment, installations and materials are adequate before being released for use by its workers, e. g. that:

- a) equipment is delivered according to specification and is tested to ensure it works as intended;
- b) installations are commissioned to ensure they function as designed;
- c) materials are delivered according to their specifications;
- d) any usage requirements, precautions or other protective measures are communicated and made available.

#### **A.8.5 Contractors**

The organization may delegate authority to those best capable of identifying, evaluating, and controlling OH&S risks, including to contractors. This recognizes that some contractors possess specialized knowledge, skills, methods, and means. However, this delegation does not eliminate the organization's responsibility for the health and safety of its workers.

Contractors can be specialists in maintenance, construction, operations, security, landscaping, facility upkeep, janitorial, sanitation or clean-up of production processes, and a number of other functions. Contractors can also include consultants or specialists in administrative, accounting, and other functions.

An organization can achieve coordination of its contractors' activities through the use of contracts that clearly define the responsibilities of the parties involved. An organization can use a variety of tools for managing contractors' health and safety performance, including contract award mechanisms or pre-qualification criteria which consider past health and safety performance, safety training, or health and safety capabilities, as well as direct contract requirements.

The relationships between an organization and its contractors can be both diverse and complex, and involve very different types and levels of OH&S risks. How an organization manages these relationships can vary, depending on the nature of the services provided and the risks identified. The degree of coordination should depend on factors such as the terms of the contract, the nature of the hazards and risks, the type and size of the operations, and the duration of the work on the site. When defining how it will coordinate, the organization should give consideration to the reporting of hazards between itself and its contractors, controlling worker access to hazardous areas, and procedures to follow in emergencies.

If a contractor does not have an OH&S management system, then the organization should specify how the contractor will coordinate its activities with the organization's own OH&S management system processes

(such as those used for confined space entry, lockout/tagout, exposure assessment, and process safety management), and for the reporting of work-related injuries and ill health.

The organization should verify that contractors are capable of performing their tasks before being allowed to proceed with their work, e.g. by verifying that:

- a) OH&S performance records are satisfactory;
- b) qualification, experience and competence criteria for workers are specified;
- c) training and other worker requirements were undertaken;
- d) resources, equipment and work preparations are adequate and ready for the work to proceed.

### **A.8.6 Emergency preparedness and response**

The organization should identify foreseeable emergencies applicable to its operations and plan its response; such emergencies can occur both during and beyond normal working hours, and can arise due to both natural and man-made causes. Identified emergencies should be assessed based on their OH&S risks. The organization should focus on proactive control measures (e.g. the reduction of ignition sources) not only on reactive risk controls, such as fire-fighting equipment and evacuation.

## **A.9 Performance evaluation**

### **A.9.1 Monitoring, measurement, analysis and evaluation**

#### **A.9.1.1 General**

Monitoring, measurement, analysis and evaluation should be appropriate to the size and nature of the organization and to its OH&S performance.

Monitoring and measuring results are used by an organization during its evaluations of OH&S performance.

- a) Examples of what could be monitored and measured to meet the requirements of this International Standard can include, but are not limited to:
  - 1) progress on meeting policy commitments, achieving objectives, and continual improvement;
  - 2) occupational health complaints, health surveillance of workers and work environment monitoring;
  - 3) work related incidents, injuries and ill health, and complaints, including trends;
  - 4) the effectiveness of operational controls and emergency exercises, or to evaluate the need to modify or introduce new controls (see 8.1);
  - 5) proactive and reactive actions affecting the organization's OH&S performance;
  - 6) performance of the OH&S management system;
  - 7) competence (7.2);

- b) Examples of what could be monitored and measured to evaluate the fulfilment of legal requirements can include, but are not limited to:
  - 1) identified legal requirements ( have all applicable legal requirements been determined, and are the organization’s records of them kept up-to-date);
  - 2) the status of identified gaps in compliance;
- c) Examples of what could be monitored and measured to evaluate the fulfilment of other requirements can include, but are not limited to:
  - 1) union-employer agreements;
  - 2) standards and codes;
  - 3) corporate and other policies, rules and regulations;
  - 4) insurance requirements;
- d) Criteria are what the organization should compare its performance against:
  - 1) Examples are benchmarks against:
    - i) other organizations;
    - ii) standards and codes;
    - iii) the organization’s own codes and objectives;
  - 2) The organization should use the criteria to set its internal objectives for monitoring and measurement;
  - 3) To measure criteria, indicators are typically used, for example:
    - i) If the criterion is a comparison of incidents, the organization may choose to look at frequency, type, severity, or number of incidents; then the indicator could be the determined rate within each one of these criteria;
    - ii) If the criterion is a comparison of completions of corrective actions, then the indicator could be the percentage completed on time.

Methods include:

- Monitoring can involve continual checking, supervising, critically observing or determining the status in order to identify change from the performance level required or expected. Monitoring can be applied to the OH&S management system, to processes or to controls. Examples include the use of interviews, reviews of documented information and observations of work being performed;
- Measurement generally involves the assignment of numbers to objects or events. It is the basis for quantitative data and is generally associated with the evaluation of safety programmes and health surveillance. Examples include the use of calibrated or verified equipment to measure exposure to a hazardous substance or the counting of the required safe distance from a hazard;

- Analysis is the process of examining data to reveal relationships, patterns and trends. This can mean the use of statistical operations, including information from other similar organizations, to help draw conclusions from the data. This process is most often associated with measurement activities;
- Evaluation is an activity undertaken to determine the suitability, adequacy and effectiveness of the subject matter to achieve the established objectives of the OH&S management system. This activity is most often associated with monitoring activities.

Occupational health complaints, health surveillance of workers and work environment monitoring are important elements. Where this is appropriate, suitable medical monitoring or follow-up of workers can be required. This can assist in the early detection of signs and symptoms of harm to health and to assess the effectiveness of prevention and control measures.

The frequency of monitoring and measurement should be appropriate to the size and nature of the organization and its OH&S performance, and to changes in OH&S risk.

The organization should ensure that frequencies of monitoring and measurement are in alignment with analysis and evaluation of its OH&S risks, risks, OH&S opportunities, and opportunities.

#### **A.9.1.2 Evaluation of compliance with legal requirements and other requirements**

The organization should prioritize its actions based on the identified compliance gaps.

### **A.9.2 Internal audit**

#### **A.9.2.1 Internal audit objectives**

An organization's own requirements for its OH&S management system audits may be additional to those required by this International standard.

Internal audit objectives can be based on:

- a) an organization's own policies, requirements and top management's OH&S priorities;
- b) standards;
- c) results of both OH&S risk and risk assessments ;
- d) results of previous audits, including contractor audits;
- e) incidents, corrective actions and nonconformities;
- f) worker participation;
- g) needs and expectations of interested parties;
- h) level of maturity of the management system;
- i) performance evaluation results.

### **A.9.2.2 Internal audit process**

When planning its internal audits the organization should take into consideration the importance of the processes concerned to the OH&S management system. This can include items such as the impact the processes have on risk assessment outcomes.

The extent of the audit programme should be based on the size and nature of the organization, as well as the complexity and level of maturity of the OH&S management system.

Small and medium enterprises (SMEs) can establish objectivity and impartiality of the internal auditor by creating processes that separate their role as an internal auditor from their normal assigned duties. SMEs can also use external organizations in this role.

### **A.9.3 Management review**

Clarifying the terms used in relation to management review:

- a) Suitability: The extent to which the management system fits and is right for the organization's purpose, operations, culture and business systems;
- b) Adequacy: The extent to which the management system is sufficient in meeting the applicable requirements;
- c) Effectiveness: The extent to which planned activities are realised and planned results achieved.

The management review topics listed in 9.3 a) to g) need not be addressed all at once; the organization should determine when and how the management review topics are addressed.

Management reviews are a critical part of the continual improvement of the management system. The purpose of these reviews is for top management to undertake a strategic and critical evaluation of the performance of the management system, and to recommend improvements.

This review should not be just a presentation of information, but should focus on assessing OH&S performance and identifying opportunities for continual improvement. It is up to the organization to determine appropriate measures for the effectiveness of the OH&S management system.

Management reviews should include an evaluation of how well the OH&S management system is integrated with other business processes and the strategic direction of the organization. Management reviews can include information about, for example, suppliers and contractors, internal changes in the organization, and security concerns.

Reviews can present information in a manner (for example a scorecard) that focuses on the management system elements most in need of the attention of top management. Reviews may be scheduled to coincide with other management reviews, or to meet other business or management system needs.

The adequacy of resources in item 9.3 g) includes the training and competency of workers.

## **A.10 Improvement**

### **A.10.1 Incident, nonconformity and corrective action**

Separate processes may exist for incident investigations and nonconformities depending on the organization's requirements.

Examples of incidents, nonconformities and corrective actions include but are not limited to:

- a) incidents: work related near-miss events, injuries and ill health, exposures to health hazards, occupational diseases, property and equipment damage where it can lead to OH&S risks, and vehicle accidents;
- b) nonconformities: protective equipment not functioning properly, failure to apply legal requirements, or prescribed procedures not being followed;
- c) corrective actions: (as indicated by the hierarchy of controls; see 8.1.2) elimination of hazards, substitution to safe materials, design or modification to equipment or tools, development of procedures, improving the competence of affected workers, changes in frequency of use, or use of personal protective equipment.

Root cause analysis refers to the practice of exploring all the possible factors associated with an incident by asking what happened and why it happened, to provide the input for what can be done to prevent it from happening again.

When determining the root cause of an incident or nonconformity, the organization should use methods appropriate to the nature of the incident or nonconformity being analysed. This analysis can identify multiple system failures including factors related to communication, competence, fatigue, equipment or procedures.

Root cause analysis should be focused on prevention and not on blame or punishment.

Actions, including corrective actions, (see 10.1d)) should be based on the nature of the incident or nonconformity and should be implemented in a timely manner.

Reviewing the effectiveness of corrective actions (see 10.1e)) refers to the extent the implemented corrective actions adequately control the root cause(s).

### **A.10.2 Continual improvement**

Continual improvement is a step by step approach to improve the OH&S management system over time. The objectives in 10.2.1 are intended as the minimum an organization needs to consider.

The following is a list of clauses and subclauses in this International Standard which can provide inputs into continual improvement:

- a) Clause 4 'Context of the organization';
- b) 5.4 'Participation, consultation and representation';
- c) 6.1 'Actions to address risks and opportunities';
- d) 6.2 'OH&S Objectives and plans to achieve them' ;
- e) 7.4 'Information and communication';
- f) 9.1 'Monitoring, measurement, analysis and evaluation';
- g) 9.2 'Internal audit';
- h) 9.3 'Management review';

i) 10.1 Incident, nonconformity and corrective action.

Additional examples of issues to identify opportunities include, but are not limited to:

- new technology;
- good practices, both internal and external to the organization's;
- suggestions and recommendations from interested parties;
- new knowledge and understanding of health and safety related issues;
- new or improved materials;
- changes in worker capabilities or competence;
- achieving improved performance with fewer resources (i.e. simplification, streamlining etc.).

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