

OCCUPATIONAL HEALTH AND SAFETY ASSESSMENT SERIES

Occupational health and safety management systems — Guidelines for the implementation of OHSAS 18001:2007

ICS 03.100.01: 13.100

Publishing and copyright information

The OHSAS copyright notice displayed in this document indicates when the document was last issued.

© OHSAS Project Group 2008

ISBN 978 0 580 61674 7

ICS 03.100.01; 13.100

Publication history

First published February 2000

Second edition November 2008

Amendments issued since publication

Amd. No.	Date	Text affected
----------	------	---------------

Contents

Acknowledgement *ii*

Foreword *iv*

Introduction *1*

1 Scope *4*

2 Reference publications *5*

3 Terms and definitions *5*

4 OH&S management system requirements *9*

Annexes

Annex A (informative) Correspondence between OHSAS 18001:2007, ISO 14001:2004 and ISO 9001:2008 *68*

Annex B (informative) Correspondence between OHSAS 18001, OHSAS 18002 and the ILO-OSH:2001 Guidelines on occupational safety and health management systems *71*

Annex C (informative) Examples of items for inclusion in a hazard identification checklist *75*

Annex D (informative) Comparisons of some examples of risk assessment tools and methodologies *77*

Bibliography *78*

List of figures

Figure 1 – OH&S management system model for this OHSAS Standard *2*

Figure 2 – Overview of the hazard identification and risk assessment process *15*

List of tables

Table A.1 – Correspondence between OHSAS 18001:2007, ISO 14001:2004 and ISO 9001:2008 *68*

Table B.1 – Correspondence between the clauses of the OHSAS documents and the clauses of the ILO-OSH Guidelines *73*

Summary of pages

This document comprises a front cover, an inside front cover, pages i to vi, pages 1 to 78, an inside back cover and a back cover.

The copyright notice displayed in this document indicates when the document was last issued.

Acknowledgement

The following organizations are included in this listing either to recognize their assistance in the development of this edition of OHSAS 18002, or to recognize their general support of the OHSAS standards.

AFAQ EAQA

American Industrial Hygiene Association (AIHA)

American Society of Safety Engineers (ASSE)

Asociación Española de Normalización y Certificación (AENOR)

Association of British Certification Bodies (ABCB)

British Standards Institution (BSI)

Bureau Veritas Certification

Český normalizační institut (CNI)

Comisión Federal de Electricidad (CFE), (Gerencia de la seguridad industrial)

Czech Accreditation Institute (CAI)

Det Norske Veritas (DNV)

DS Certification A/S

EEF the manufacturers' organisation

ENLAR Compliance Services, Inc.

Estonian Centre for Standardisation (EVS)

Health and Safety Executive¹⁾

Hong Kong Quality Assurance Agency (HKQAA)

iMS Risk Solutions

Institute for Standardization of Serbia (ISS)

Institution of Occupational Safety and Health (IOSH)

Instituto Argentino de Normalización y Certificación (IRAM)

Instituto Colombiano de Normas Técnicas y Certificación (ICONTEC)

Instituto de Normas Técnicas de Costa Rica (INTECO)

Instituto Mexicano de Normalización y Certificación, A.C. (IMNC, A.C.)

Instituto Uruguayo de Normas Técnicas (UNIT)

ITS Consultants

Japan Industrial Safety and Health Association (JISHA)

Japanese Standards Association (JSA)

Korea Gas Safety Corporation (ISO Certificate Division)

Lloyds Register Quality Assurance (LRQA)

Management Systems Certification Limited

¹⁾ As the regulatory authority responsible for health and safety in Great Britain, the Health and Safety Executive would wish to make it clear that reliance on the OHSAS Standard by organizations will not absolve them from compliance with any of their legal health and safety obligations under the laws of England and Wales, and Scotland.

National Standards Authority of Ireland (NSAI)
National University of Singapore (NUS)
Nederlands Normalisatie-instituut (NEN)
NPKF ELECTON
NQA
QMI-SAI Global
SABS Commercial (Pty) Ltd.
Service de Normalisation Industrielle Marocaine (SNIMA)
SGS United Kingdom Ltd
SIRIM QAS International
Slovenský ústav technickej normalizácie (SUTN)
SPRING Singapore
Standards Institution of Israel (SII)
Sucofindo International Certification Services (SICS)
Swedish Industry Association (Sinf)
Swedish Standards Institute (SIS)
Technofer Ltd.
TÜV Rheinland Cert GmbH – TÜV Rheinland Group
Standards Association of Zimbabwe (SAZ)

We would also like to recognize the invaluable contribution made by those many organizations who took the time to review the working drafts of OHSAS 18002, and who submitted comments for consideration. This helped us greatly in improving the standard, and is much appreciated.

Foreword

This Occupational Health and Safety Assessment Series (OHSAS) guideline, and OHSAS 18001:2007, *Occupational health and safety management systems — Requirements*, have been developed in response to customer demand for a recognizable occupational health and safety management system standard against which their management systems can be assessed and certified, and for guidance on the implementation of such a standard.

OHSAS 18001 is compatible with the ISO 9001:2008 (Quality) and ISO 14001:2004 (Environmental) management systems standards, in order to facilitate the integration of quality, environmental and occupational health and safety management systems by organizations, should they wish to do so.

OHSAS 18002 quotes the specific requirements from OHSAS 18001 and follows with relevant guidance. The clause numbering of OHSAS 18002 is aligned with that of OHSAS 18001. Text given with an outlined box is an exact duplication of text from OHSAS 18001.

OHSAS 18002 will be reviewed and amended or revised when considered appropriate. Reviews will be conducted when new editions of OHSAS 18001 are published (expected when revised editions of either ISO 9001 or ISO 14001 are published).

This OHSAS Standard will be withdrawn on publication of its contents in, or as, an International Standard.

This OHSAS Standard has been drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

This second edition cancels and replaces the first edition (OHSAS 18002:2000), which has been technically revised.

The principal changes with respect to the previous edition are as follows:

- 1) in relation to the revised text of OHSAS 18001:
 - The importance of “health” has now been given greater emphasis.
 - OHSAS 18001 now refers to itself as a standard, not a specification, or document, as in the earlier edition. This reflects the increasing adoption of OHSAS 18001 as the basis for national standards on occupational health and safety management systems.
 - The “Plan-Do-Check-Act” model diagram is only given in the Introduction, in its entirety, and not also as sectional diagrams at the start of each major clause.
 - Reference publications in Clause 2 have been limited to purely international documents.
 - New definitions have been added, and existing definitions revised.
 - Significant improvement in alignment with ISO 14001:2004 throughout the standard, and improved compatibility with ISO 9001:2008.
 - The term “tolerable risk” has been replaced by the term “acceptable risk” (see 3.1).

- The term “accident” is now included in the term “incident” (see **3.9**).
- The definition of the term “hazard” no longer refers to “damage to property or damage to the workplace environment” (see **3.6**).

It is now considered that such “damage” is not directly related to occupational health and safety management, which is the purpose of this OHSAS Standard, and that it is included in the field of asset management. Instead, the risk of such “damage” having an effect on occupational health and safety should be identified through the organization’s risk assessment process, and be controlled through the application of appropriate risk controls.

- Sub-clauses **4.3.3** and **4.3.4** have been merged, in line with ISO 14001:2004.
 - A new requirement has been introduced for the consideration of the hierarchy of controls as part of OH&S planning (see **4.3.1**).
 - Management of change is now more explicitly addressed (see **4.3.1** and **4.4.6**).
 - A new clause on the “Evaluation of compliance” (see **4.5.2**) has been introduced.
 - New requirements have been introduced for participation and consultation (see **4.4.3.2**).
 - New requirements have been introduced for the investigation of incidents (see **4.5.3.1**).
- 2) in relation to changes that are specific to OHSAS 18002:
- OHSAS 18002:2000 included a presentation format where firstly the relevant OHSAS 18001 clause was given followed by:
 - a) a description of the intent of the clause;
 - b) typical inputs needed for meeting the requirements of the clause;
 - c) a description of processes that an organization could use to meet the requirements;
 - d) typical outputs expected from meeting the requirements.

This format was found to be difficult to apply, so has not been followed in this edition (in fact, the format had not been applied consistently in the 2000 edition). Instead, this edition of OHSAS 18002 is now presented in a more logical format, in which items in a) to d) have been followed during the drafting of the guidance, but have not been given overtly, as previously.

- New sub-clauses, as per OHSAS 18001 (and from ISO 14001), e.g.:
 - for OHSAS 18001:2007, **4.4.3** Communication, participation and consultation (including new sub-clauses on participation/consultation), and **4.5.3.1** Incident investigation.
 - from ISO 14001:2004, **4.3.3** Objectives and programme(s) (through the merging of the former sub-clauses **4.3.3** and **4.3.4**), and **4.5.2** Evaluation of compliance.



- New sub-clauses in alignment with the ILO-OSH:2001 Guidelines, e.g. **4.1.2** Initial review, and **4.3.1.5** Management of change
- Additional new sub-clauses and annexes, e.g. **4.4.2.4** Awareness, Annex C – Examples of items for inclusion in a hazard identification checklist and Annex D – Comparisons of some examples of risk assessment tools and methodologies
- Expanded guidance given in many sub-clauses, e.g. for **4.3.1** Hazard identification, risk assessment and determination of controls, **4.3.2** Legal and other requirements, **4.3.3** Objectives and programme(s), **4.4.6** Operational control, **4.4.7** Emergency preparedness and response, **4.5.5** Internal audit

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this Occupational Health and Safety Assessment Series (OHSAS) Standard cannot confer immunity from legal obligations.

Introduction

Organizations of all kinds are increasingly concerned with achieving and demonstrating sound occupational health and safety (OH&S) performance by controlling their OH&S risks, consistent with their OH&S policy and objectives. They do so in the context of increasingly stringent legislation, the development of economic policies and other measures that foster good OH&S practices, and of increased concern expressed by interested parties about OH&S issues.

Many organizations have undertaken OH&S “reviews” or “audits” to assess their OH&S performance. On their own, however, these “reviews” and “audits” may not be sufficient to provide an organization with the assurance that its performance not only meets, but will continue to meet, its legal and policy requirements. To be effective, they need to be conducted within a structured management system that is integrated within the organization.

The OHSAS Standards covering OH&S management are intended to provide organizations with the elements of an effective OH&S management system that can be integrated with other management requirements and help organizations achieve OH&S and economic objectives. These standards, like other International Standards, are not intended to be used to create non-tariff trade barriers or to increase or change an organization’s legal obligations.

OHSAS 18001 specifies requirements for an OH&S management system to enable an organization to develop and implement a policy and objectives which take into account legal requirements and information about OH&S risks. It is intended to apply to all types and sizes of organizations and to accommodate diverse geographical, cultural and social conditions. The basis of the approach is shown in Figure 1. The success of the system depends on commitment from all levels and functions of the organization, and especially from top management. A system of this kind enables an organization to develop an OH&S policy, establish objectives and processes to achieve the policy commitments, take action as needed to improve its performance, and demonstrate the conformity of the system to the requirements of OHSAS 18001. The overall aim of OHSAS 18001 is to support and promote good OH&S practices, including self regulation, in balance with socio-economic needs. It should be noted that many of the requirements can be addressed concurrently or revisited at any time.

The development of OHSAS 18001:2007 focused on improving the standard by:

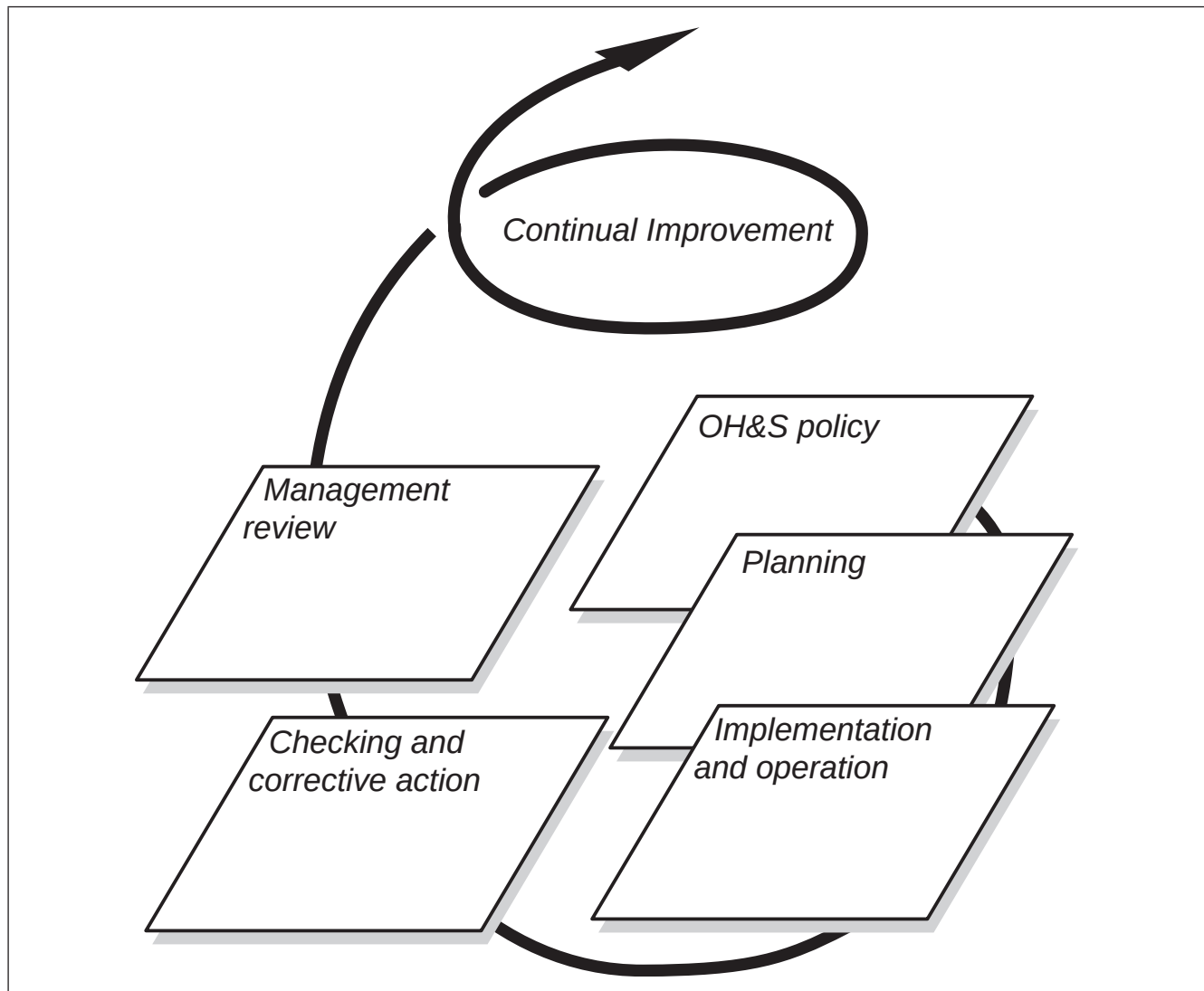
- improving alignment with ISO 14001 and ISO 9001;
- seeking opportunities for alignment with other OH&S management system standards, e.g. the ILO-OSH:2001 Guidelines;
- reflecting developments in OH&S practices;
- clarifying the original text from the OHSAS 18001:1999 requirements based on experience of its use.

There is an important distinction between OHSAS 18001, which describes the requirements for an organization’s OH&S management system and can be used for certification/registration and/or self-declaration of an organization’s OH&S management system, and

a non-certifiable guideline, such as OHSAS 18002, intended to provide generic assistance to an organization for establishing, implementing or improving an OH&S management system. OH&S management encompasses a full range of issues, including those with strategic and competitive implications. Demonstration of successful implementation of OHSAS 18001 can be used by an organization to assure interested parties that an appropriate OH&S management system is in place.

Any reference to other International Standards is for information only.

Figure 1 OH&S management system model for this OHSAS Standard



NOTE This OHSAS Standard is based on the methodology known as Plan-Do-Check-Act (PDCA). PDCA can be briefly described as follows.

- **Plan:** establish the objectives and processes necessary to deliver results in accordance with the organization's OH&S policy.
- **Do:** implement the processes.
- **Check:** monitor and measure processes against OH&S policy, objectives, legal and other requirements, and report the results.
- **Act:** take actions to continually improve OH&S performance.

Many organizations manage their operations via the application of a system of processes and their interactions, which can be referred to as the "process approach". ISO 9001 promotes the use of the process approach. Since PDCA can be applied to all processes, the two methodologies are considered to be compatible.

OHSAS 18001 contains requirements that can be objectively audited; however, it does not establish absolute requirements for OH&S performance beyond the commitments, in the OH&S policy, to comply with applicable legal requirements and with other requirements to which the organization subscribes, to the prevention of injury and ill health and to continual improvement. Thus, two organizations carrying out similar operations but having different OH&S performance can both conform to its requirements.

OHSAS 18001 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. It is possible for an organization to adapt its existing management system(s) in order to establish an OH&S management system that conforms to the requirements of OHSAS 18001. It is pointed out, however, that the application of various elements of the management system might differ depending on the intended purpose and the interested parties involved.

The level of detail and complexity of the OH&S management system, the extent of documentation and the resources devoted to it depend on a number of factors, such as the scope of the system, the size of an organization and the nature of its activities, products and services, and the organizational culture. This may be the case in particular for small and medium-sized enterprises.

NOTE 1 As all of the requirements of OHSAS 18001:2007 are included within OHSAS 18002:2008, organizations can choose to retain a copy of OHSAS 18002 alone, for certification purposes.

NOTE 2 There are some small variations in text between the Introduction given in OHSAS 18001 and this Introduction to account for the differences in the two OHSAS standards.

Occupational health and safety management systems — Guidelines for the implementation of OHSAS 18001:2007

1 Scope

This Occupational Health and Safety Assessment Series (OHSAS) guideline provides generic advice on the application of OHSAS 18001:2007.

It explains the underlying principles of OHSAS 18001 and describes the intent, typical inputs, processes and typical outputs, against each requirement of OHSAS 18001. This is to aid the understanding and implementation of OHSAS 18001.

OHSAS 18002 does not create additional requirements to those specified in OHSAS 18001 nor does it prescribe mandatory approaches to the implementation of OHSAS 18001.

OHSAS 18001 text

This Occupational Health and Safety Assessment Series (OHSAS) Standard specifies requirements for an occupational health and safety (OH&S) management system, to enable an organization to control its OH&S risks and improve its OH&S performance. It does not state specific OH&S performance criteria, nor does it give detailed specifications for the design of a management system.

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

- a) establish an OH&S management system to eliminate or minimize risks to personnel and other interested parties who could be exposed to OH&S hazards associated with its activities;
- b) implement, maintain and continually improve an OH&S management system;
- c) assure itself of its conformity with its stated OH&S policy;
- d) demonstrate conformity with this OHSAS Standard by:
 - 1) making a self-determination and self-declaration, or
 - 2) seeking confirmation of its conformance by parties having an interest in the organization, such as customers, or
 - 3) seeking confirmation of its self-declaration by a party external to the organization, or
 - 4) seeking certification/registration of its OH&S management system by an external organization.

All the requirements in this OHSAS Standard are intended to be incorporated into any OH&S management system. The extent of the application will depend on such factors as the OH&S policy of the organization, the nature of its activities and the risks and complexity of its operations.

This OHSAS Standard is intended to address occupational health and safety, and is not intended to address other health and safety areas such as employee wellbeing/wellness programs, product safety, property damage or environmental impacts.

2 Reference publications

Other publications that provide information or guidance are listed in the Bibliography. It is advisable that the latest editions of such publications be consulted. Specifically, reference should be made to the following publications.

OHSAS 18001:2007, *Occupational health and safety management systems — Requirements*

International Labour Organization:2001, *Guidelines on occupational safety and health management systems (ILO-OSH:2001)*

ISO 19011:2002, *Guidelines for quality and/or environmental management systems auditing*

NOTE A project was approved by the International Organization for Standardization (ISO) in March 2008 to revise ISO 19011 and to expand its scope to cover the auditing of additional fields of management systems, including OH&S management systems. Reference should be made to the revised version when it is available.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in OHSAS 18001 apply.

OHSAS 18001 text

3.1

acceptable risk

risk that has been reduced to a level that can be tolerated by the organization having regard to its legal obligations and its own OH&S policy (**3.16**)

3.2

audit

systematic, independent and documented process for obtaining “audit evidence” and evaluating it objectively to determine the extent to which “audit criteria” are fulfilled

[ISO 9000:2005, **3.9.1**]

NOTE 1 Independent does not necessarily mean external to the organization. In many cases, particularly in smaller organizations, independence can be demonstrated by the freedom from responsibility for the activity being audited.

NOTE 2 For further guidance on “audit evidence” and “audit criteria”, see ISO 19011.

3.3

continual improvement

recurring process of enhancing the OH&S management system **(3.13)** in order to achieve improvements in overall OH&S performance **(3.15)** consistent with the organization's **(3.17)** OH&S policy **(3.16)**

NOTE 1 The process need not take place in all areas of activity simultaneously.

NOTE 2 Adapted from ISO 14001:2004, 3.2.

3.4

corrective action

action to eliminate the cause of a detected nonconformity **(3.11)** or other undesirable situation

NOTE 1 There can be more than one cause for a nonconformity.

*NOTE 2 Corrective action is taken to prevent recurrence whereas preventive action **(3.18)** is taken to prevent occurrence.*

[ISO 9000:2005, 3.6.5]

3.5

document

information and its supporting medium

NOTE The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or a combination thereof.

[ISO 14001:2004, 3.4]

3.6

hazard

source, situation, or act with a potential for harm in terms of human injury or ill health **(3.8)**, or a combination of these

3.7

hazard identification

process of recognizing that a hazard **(3.6)** exists and defining its characteristics

3.8

ill health

identifiable, adverse physical or mental condition arising from and/or made worse by a work activity and/or work-related situation

3.9

incident

work-related event(s) in which an injury or ill health **(3.8)** (regardless of severity) or fatality occurred, or could have occurred

NOTE 1 An accident is an incident which has given rise to injury, ill health or fatality.

NOTE 2 An incident where no injury, ill health, or fatality occurs may also be referred to as a "near-miss", "near-hit", "close call" or "dangerous occurrence".

NOTE 3 An emergency situation (see 4.4.7) is a particular type of incident.

3.10**interested party**

person or group, inside or outside the workplace (3.23), concerned with or affected by the OH&S performance (3.15) of an organization (3.17)

3.11**nonconformity**

non-fulfilment of a requirement

[ISO 9000:2005, 3.6.2; ISO 14001, 3.15]

NOTE A nonconformity can be any deviation from:

- relevant work standards, practices, procedures, legal requirements, etc.
- OH&S management system (3.13) requirements.

3.12**occupational health and safety (OH&S)**

conditions and factors that affect, or could affect, the health and safety of employees or other workers (including temporary workers and contractor personnel), visitors, or any other person in the workplace (3.23)

NOTE Organizations can be subject to legal requirements for the health and safety of persons beyond the immediate workplace, or who are exposed to the workplace activities.

3.13**OH&S management system**

part of an organization's (3.17) management system used to develop and implement its OH&S policy (3.16) and manage its OH&S risks (3.21)

NOTE 1 A management system is a set of interrelated elements used to establish policy and objectives and to achieve those objectives.

NOTE 2 A management system includes organizational structure, planning activities (including, for example, risk assessment and the setting of objectives), responsibilities, practices, procedures (3.19), processes and resources.

NOTE 3 Adapted from ISO 14001:2004, 3.8.

3.14**OH&S objective**

OH&S goal, in terms of OH&S performance (3.15), that an organization (3.17) sets itself to achieve

NOTE 1 Objectives should be quantified wherever practicable.

NOTE 2 4.3.3 requires that OH&S objectives are consistent with the OH&S policy (3.16).

3.15**OH&S performance**

measurable results of an organization's (3.17) management of its OH&S risks (3.21)

NOTE 1 OH&S performance measurement includes measuring the effectiveness of the organization's controls.

NOTE 2 In the context of OH&S management systems (3.13), results can also be measured against the organization's (3.17) OH&S policy (3.16), OH&S objectives (3.14), and other OH&S performance requirements.

3.16

OH&S policy

overall intentions and direction of an organization (3.17) related to its OH&S performance (3.15) as formally expressed by top management

NOTE 1 The OH&S policy provides a framework for action and for the setting of OH&S objectives (3.14)

NOTE 2 Adapted from ISO 14001:2004, 3.11.

3.17

organization

company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration

NOTE For organizations with more than one operating unit, a single operating unit may be defined as an organization.

[ISO 14001:2004, 3.16]

3.18

preventive action

action to eliminate the cause of a potential nonconformity (3.11) or other undesirable potential situation

NOTE 1 There can be more than one cause for a potential nonconformity.

NOTE 2 Preventive action is taken to prevent occurrence whereas corrective action (3.4) is taken to prevent recurrence.

[ISO 9000:2005, 3.6.4]

3.19

procedure

specified way to carry out an activity or a process

NOTE Procedures can be documented or not.

[ISO 9000:2005, 3.4.5]

3.20

record

document (3.5) stating results achieved or providing evidence of activities performed

[ISO 14001:2004, 3.20]

3.21

risk

combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health (3.8) that can be caused by the event or exposure(s)

3.22

risk assessment

process of evaluating the risk(s) (3.21) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable

3.23**workplace**

any physical location in which work related activities are performed under the control of the organization

NOTE When giving consideration to what constitutes a workplace, the organization (3.17) should take into account the OH&S effects on personnel who are, for example, travelling or in transit (e.g. driving, flying, on boats or trains), working at the premises of a client or customer, or working at home.

4 OH&S management system requirements

4.1 General requirements

OHSAS 18001 text

The organization shall establish, document, implement, maintain and continually improve an OH&S management system in accordance with the requirements of this OHSAS Standard and determine how it will fulfil these requirements.

The organization shall define and document the scope of its OH&S management system.

4.1.1 OH&S management system

This OHSAS 18001 requirement is a general statement concerning the establishment and maintenance of an OH&S management system within an organization

“Establish” implies a level of permanency and the system should not be considered established until all its elements have been demonstrably implemented. “Maintain” implies that, once established, the system continues to operate. This requires active effort on the part of the organization. Many systems start well but deteriorate due to lack of maintenance. Many of the elements of OHSAS 18001 (such as checking and corrective action and management review) are designed to ensure active maintenance of the system.

An organization seeking to establish an OH&S management system that conforms to OHSAS 18001 should determine its current position with regard to its OH&S risks by means of an initial review (see 4.1.2 for further details on initial review). In determining how it will fulfil the requirements of OHSAS 18001 the organization should consider the conditions and factors that affect, or could affect, the health and safety of persons, what OH&S policies it needs, and how it will manage its OH&S risks.

The level of detail and complexity of the OH&S management system, the extent of documentation and the resources devoted to it are dependent on the nature (size, structure, complexity) of an organization and its activities.

4.1.2 Initial review

An initial review should compare the organization's current management of OH&S against the OHSAS 18001 requirements (including those for applicable legal or other requirements), in order to determine the extent to which these requirements are being met.

The initial review will provide information which an organization can use in formulating plans for implementing and prioritizing improvements to the OH&S management system.

The aim of an initial review should be to consider all OH&S risks faced by the organization, as a basis for establishing the OH&S management system. An organization should consider, but not limit itself to, the following items within its initial review:

- legal and other requirements (see the examples in **4.3.2**);
- identification of the OH&S hazards and evaluation of risks faced by the organization;
- OH&S assessments;
- an examination of existing systems, practices, processes and procedures;
- evaluations of OH&S improvement initiatives;
- an evaluation of feedback from the investigation of previous incidents, work related ill health, accidents and emergencies;
- relevant management systems and available resources.

A suitable approach to the initial review can include the use of:

- checklists, interviews, direct inspection and measurement;
- the results of previous management system audits or other reviews, depending on the nature of the organization's activities;
- the results of consultations with workers, contractors or other relevant external interested parties.

Where hazard identification and risk assessment processes already exist, they should be reviewed for adequacy against the requirements of OHSAS 18001.

It is emphasized that an initial review is not a substitute for the implementation of the structured systematic approach to hazard identification, risk assessment and determining controls given in **4.3.1**. However an initial review can provide additional inputs into planning these processes.

4.1.3 Scope of the OH&S management system

An organization can choose to implement an OH&S management system with respect to the entire organization, or to a subdivision of the organization, provided this is consistent with its definition of its workplace (see **3.23**). However, once the workplace is defined, all the work related activities and services of the organization, or subdivision, within that workplace need to be included in the OH&S management system.

Care should be taken in defining and documenting the scope of the OH&S management system, to determine who, what and where, are to be covered. The scope should not be limited so as to exclude an

operation or activity that can impact on the OH&S (see 3.12) of an organization's employees and other persons under its control in the workplace.

NOTE The ILO-OSH:2001 Guidelines recommend that employees are consulted when defining the scope, or when changes to the scope are considered.

4.2 OH&S policy

OHSAS 18001 text

Top management shall define and authorize the organization's OH&S policy and ensure that within the defined scope of its OH&S management system it:

- a) is appropriate to the nature and scale of the organization's OH&S risks;
- b) includes a commitment to prevention of injury and ill health and continual improvement in OH&S management and OH&S performance;
- c) includes a commitment to at least comply with applicable legal requirements and with other requirements to which the organization subscribes that relate to its OH&S hazards;
- d) provides the framework for setting and reviewing OH&S objectives;
- e) is documented, implemented and maintained;
- f) is communicated to all persons working under the control of the organization with the intent that they are made aware of their individual OH&S obligations;
- g) is available to interested parties; and
- h) is reviewed periodically to ensure that it remains relevant and appropriate to the organization.

Top management should demonstrate the leadership and commitment necessary for the OH&S management system to be successful and to achieve improved OH&S performance.

An OH&S policy establishes an overall sense of direction and is the driver for implementing and improving an organization's OH&S management system so that it can maintain and potentially improve its OH&S performance.

It should enable persons under the control of the organization to understand the overall commitment of the organization and how this can affect their individual responsibilities.

The responsibility for defining and authorizing an OH&S policy rests with the organization's top management. The ongoing and proactive involvement of top management in developing and implementing an OH&S policy is crucial.

The organization's OH&S policy should be appropriate to the nature and scale of its identified risks and should guide the setting of objectives. In order to be appropriate, the OH&S policy should:

- be consistent with a vision of the organization's future, and
- be realistic, neither overstating the nature of the risks the organization faces, nor trivializing them.

In developing its OH&S policy, an organization should consider:

- its mission, vision, core values and beliefs,
- coordination with other policies (corporate, integrated, etc.),
- the needs of persons working under the control of the organization,
- the OH&S hazards of the organization,
- legal and other requirements to which the organization subscribes that relate to its OH&S hazards,
- historical and current OH&S performance by the organization,
- opportunities and needs for continual improvement and the prevention of injury and ill health,
- the views of interested parties,
- what is needed to establish realistic and achievable objectives.

The policy is, as a minimum, required to include statements about the commitment of an organization to:

- the prevention of injury and ill health,
- continual improvement in OH&S management,
- continual improvement in OH&S performance,
- compliance with applicable legal requirements, and
- compliance with other requirements to which the organization subscribes.

The OH&S policy can be linked with other policy documents of the organization and should be consistent with the organization's overall business policies and with its policies for other management disciplines, e.g. quality management or environmental management.

The communication of the policy should assist in:

- demonstrating the commitment of top management and the organization to OH&S,
- increasing awareness of the commitments made in the policy statement,
- explaining why the OH&S system is established and is maintained,
- guiding individuals in understanding their OH&S responsibilities and accountabilities (see **4.4.2**).

In communicating the policy, consideration should be given to how to create and maintain awareness in both new and existing persons under the control of the organization. The policy can be communicated in alternative forms to the policy statement itself, such as through the use of rules, directives and procedures, wallet cards, posters, etc. In communicating the policy, account should be taken of issues such as diversity in the workplace, literacy levels, language skills, etc.

It is for the organization to determine how it wishes to make the policy available to its interested parties, e.g. through publication on a web site, or by providing printed copies on request.

The OH&S policy should be reviewed periodically (see **4.6**) to ensure that it remains relevant and appropriate to the organization. Change is inevitable, as legislation and societal expectations evolve; consequently, the organization's OH&S policy and OH&S management system need to be reviewed regularly to ensure their continuing suitability and effectiveness. If changes are made to the policy, the revised policy should be communicated to all persons working under the control of the organization.

NOTE "OH&S management" is equivalent to "the management of OH&S" and is the coordinated activities to direct and control an organization with regard to OH&S.

4.3 Planning

4.3.1 Hazard identification, risk assessment and determining controls

OHSAS 18001 text

The organization shall establish, implement and maintain a procedure(s) for the ongoing hazard identification, risk assessment, and determination of necessary controls.

The procedure(s) for hazard identification and risk assessment shall take into account:

- a) routine and non-routine activities;
- b) activities of all persons having access to the workplace (including contractors and visitors);
- c) human behaviour, capabilities and other human factors;
- d) identified hazards originating outside the workplace capable of adversely affecting the health and safety of persons under the control of the organization within the workplace;
- e) hazards created in the vicinity of the workplace by work-related activities under the control of the organization;

NOTE 1 It may be more appropriate for such hazards to be assessed as an environmental aspect.

- f) infrastructure, equipment and materials at the workplace, whether provided by the organization or others;
- g) changes or proposed changes in the organization, its activities, or materials;
- h) modifications to the OH&S management system, including temporary changes, and their impacts on operations, processes, and activities;
- i) any applicable legal obligations relating to risk assessment and implementation of necessary controls (see also the NOTE to **3.12**);
- j) the design of work areas, processes, installations, machinery/equipment, operating procedures and work organization, including their adaptation to human capabilities.

The organization's methodology for hazard identification and risk assessment shall:

- a) be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive; and
- b) provide for the identification, prioritization and documentation of risks, and the application of controls, as appropriate.

For the management of change, the organization shall identify the OH&S hazards and OH&S risks associated with changes in the organization, the OH&S management system, or its activities, prior to the introduction of such changes.

The organization shall ensure that the results of these assessments are considered when determining controls.

When determining controls, or considering changes to existing controls, consideration shall be given to reducing the risks according to the following hierarchy:

- a) elimination;
- b) substitution;
- c) engineering controls;
- d) signage/warnings and/or administrative controls;
- e) personal protective equipment.

The organization shall document and keep the results of identification of hazards, risk assessments and determined controls up-to-date.

The organization shall ensure that the OH&S risks and determined controls are taken into account when establishing, implementing and maintaining its OH&S management system.

4.3.1.1 General

Hazards have the potential to cause human injury or ill health. Hazards therefore need to be identified before the risks associated with these hazards can be assessed and, if no controls exist or existing controls are inadequate, effective controls should be implemented according to the hierarchy of controls [see bullets a) to e) in OHSAS 18001:2007, **4.3.1**].

An organization will need to apply the process of hazard identification (see **3.7**) and risk assessment (see **3.22**) to determine the controls that are necessary to reduce the risks of incidents (see **3.9**). The overall purpose of the risk assessment process is to recognize and understand the hazards (see **3.6**) that might arise in the course of the organization's activities and ensure that the risks (see **3.21**) to people arising from these hazards are assessed, prioritized and controlled to a level that is acceptable (see **3.1**).

This is achieved by:

- developing a methodology for hazard identification and risk assessment,
- identifying hazards,

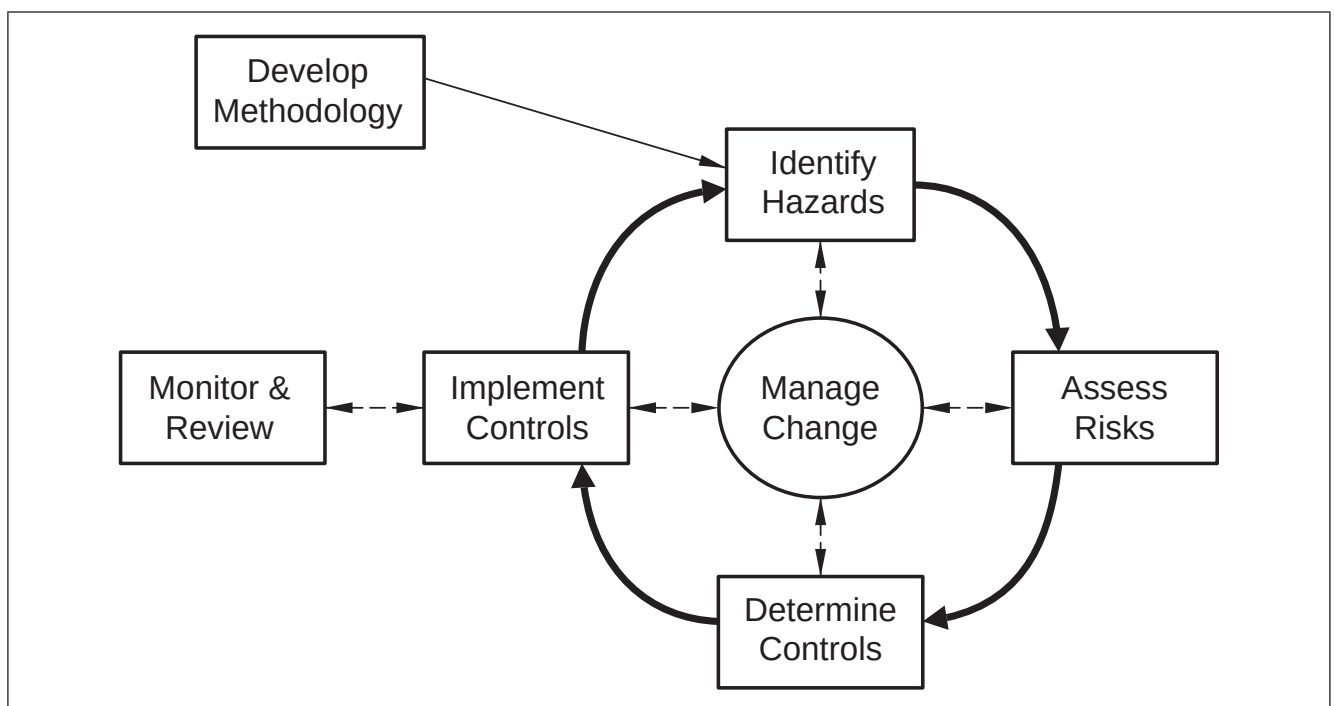
- estimating the associated risks, taking into account the adequacy of any existing controls (it could be necessary to obtain additional data and perform further analysis in order to achieve a reasonable estimation of the risks),
- determining whether these risks are acceptable, and
- determining the appropriate risk controls, where these are found to be necessary (workplace hazards and the way they are to be controlled are often defined in regulations, codes of practice, guidance published by regulators, and industry guidance documents).

The results of risk assessments enable the organization to compare risk reduction options and prioritize resources for effective risk management.

The outputs from the hazard identification, risk assessment and determining control processes should also be used throughout the development and implementation of the OH&S management system.

Figure 2 provides an overview of the risk assessment process.

Figure 2 **Overview of the hazard identification and risk assessment process**



NOTE The development of the methodology can itself be subject to change or improvement.

4.3.1.2 Developing a methodology and procedures for hazard identification and risk assessment

Hazard identification and risk assessment methodologies vary greatly across industries, ranging from simple assessments to complex quantitative analyses with extensive documentation. Individual hazards can require that different methods be used, e.g. an assessment of long term exposure to chemicals can need a different method than that taken for equipment safety or for assessing an

office workstation. Each organization should choose approaches that are appropriate to its scope, nature and size, and which meet its needs in terms of detail, complexity, time, cost and availability of reliable data. In combination, the chosen approaches should result in an inclusive methodology for the ongoing evaluation of all the organization's OH&S risks.

The management of change (see **4.3.1.5**) needs to be considered for changes in assessed risks, determination of controls, or the implementation of controls. Management review should be used to determine whether changes to the methodology are needed overall.

To be effective, the organization's procedures for hazard identification and risk assessment should take account of the following:

- hazards,
- risks,
- controls,
- management of change,
- documentation,
- ongoing review.

To ensure consistency of application, it is recommended that these procedure(s) be documented.

OHSAS 18001:2007, **4.3.1**, identifies in bullets a) to j) what should be taken into account in developing the procedure(s). Guidance on these can be found in sub-clauses **4.3.1.3** to **4.3.1.8**.

4.3.1.3 Hazard Identification

Hazard identification should aim to determine proactively all sources, situations or acts (or a combination of these), arising from an organization's activities, with a potential for harm in terms of human injury or ill health (see the definition of "hazard" in **3.6**). Examples include:

- sources (e.g. moving machinery, radiation or energy sources),
- situations (e.g. working at heights), or
- acts (e.g. manual lifting).

Hazard identification should consider the different types of hazards in the workplace, including physical, chemical, biological and psychosocial (see Annex C for examples of hazards).

The organization should establish specific hazard identification tools and techniques that are relevant to the scope of its OH&S management system.

The following sources of information or inputs should be considered during the hazard identification process:

- OH&S legal and other requirements (see **4.3.2**), e.g. those that prescribe how hazards should be identified,
- OH&S policy (see **4.2**),
- monitoring data (see **4.5.1**),
- occupational exposure and health assessments,
- records of incidents (see **3.9**),

- reports from previous audits, assessments or reviews,
- input from employees and other interested parties (see 4.4.3),
- information from other management systems (e.g. for quality management or environmental management),
- information from employee OH&S consultations,
- process review and improvement activities in the workplace,
- information on best practice and/or typical hazards in similar organizations,
- reports of incidents that have occurred in similar organizations,
- information on the facilities, processes and activities of the organization, including the following:
 - workplace design, traffic plans (e.g. pedestrian walkways, vehicle routing), site plan(s),
 - process flowcharts and operations manuals,
 - inventories of hazardous materials (raw materials, chemicals, wastes, products, sub-products),
 - equipment specifications,
 - product specifications, material safety data sheets, toxicology and other OH&S data.

Hazard identification processes should be applied to both routine and to non-routine (e.g. periodic, occasional, or emergency) activities and situations.

Examples of non-routine activities and situations that should be considered during the hazard identification process include:

- facilities or equipment cleaning,
- temporary process modifications,
- non-scheduled maintenance,
- plant or equipment start-ups/shut-downs,
- off-site visits (e.g. field trips, customer supplier visits, prospecting, excursions),
- refurbishment,
- extreme weather conditions,
- utility (e.g. power, water, gas, etc.) disruptions,
- temporary arrangements,
- emergency situations.

Hazard identification should consider all persons having access to the workplace (e.g. customers, visitors, service contractors, delivery personnel, as well as employees) and:

- the hazards and risks arising from their activities,
- the hazards arising from the use of products or services supplied to the organization by them,
- their degree of familiarity with the workplace, and
- their behaviour.

Human factors, such as capabilities, behaviours and limitations, have to be taken into account [see bullet c) of OHSAS 18001:2007, **4.3.1**] when evaluating the hazards and risks of processes, equipment and work environments. Human factors should be considered whenever there is a human interface and take into account issues such as ease of use, potential for operational errors, operator stress and user fatigue.

In considering human factors, the organization's hazard identification process should consider the following, and their interactions:

- the nature of the job (workplace layout, operator information, work load, physical work, work patterns),
- the environment (heat, lighting, noise, air quality),
- human behaviour (temperament, habits, attitude),
- psychological capabilities (cognition, attention),
- physiological capabilities (biomechanical, anthropometrics/ physical variation of people).

In some instances, there can be hazards which occur or originate outside the workplace that can have an impact on individuals within the workplace (e.g. releases of toxic materials from neighbouring operations). Where such hazards are foreseeable, these should be addressed.

The organization could be obliged to give consideration to hazards created beyond the boundary of the workplace, particularly where there is a legal obligation or duty of care concerning such hazards. In some legal jurisdictions such hazards are instead addressed through the organization's environmental management system.

For the hazard identification to be effective the organization should use an approach that includes information from a variety of sources, especially inputs from people who have knowledge of its processes, tasks or systems, e.g.:

- observations of behaviour and work practices and analyses of the underlying causes of unsafe behaviour,
- benchmarking,
- interviews and surveys,
- safety tours and inspections,
- incident reviews and subsequent analyses,
- monitoring and assessment of hazardous exposures (chemical and physical agents),
- workflow and process analysis, including their potential for creating unsafe behaviour.

Hazard identification should be conducted by a person(s) with competence in relevant hazard identification methodologies and techniques (see **4.4.2**) and appropriate knowledge of the work activity.

Checklists can be used as a reminder of what types of potential hazards to consider and to record the initial hazard identification; however, care should be taken to avoid over reliance on the use of checklists (see Annex C). Checklists should be specific to the work area, process or equipment being evaluated.

4.3.1.4 Risk assessment

4.3.1.4.1 General

Risk is the combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health (3.8) that can be caused by the event or exposure(s) (see 3.21).

Risk assessment is a process of evaluating the risk(s) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether the risk(s) is acceptable (see 3.22).

An acceptable risk (see 3.1) is a risk that has been reduced to a level that the organization is willing to assume with respect to its legal obligation, its OH&S policy and its OH&S objectives.

NOTE Some reference documents use the term “risk assessment” to encompass the entire process of hazard identification, risk assessment and determining controls; OHSAS 18001 and OHSAS 18002 refer to the individual elements of this process separately and use the term “risk assessment” to refer explicitly to the second stage of this process.

4.3.1.4.2 Risk assessment inputs

Inputs to the risk assessment processes can include, but are not be limited to, information or data on the following:

- details of location(s) where work is carried out,
- the proximity and scope for hazardous interaction between activities in the workplace,
- security arrangements,
- the human capabilities, behaviour, competence, training and experience of those who normally and/or occasionally carry out hazardous tasks,
- toxicological data, epidemiological data and other health related information,
- the proximity of other personnel (e.g. cleaners, visitors, contractors, the public) who might be affected by hazardous work,
- details of any work instructions, systems of work and/or permit-to-work procedures, prepared for hazardous tasks,
- manufacturers' or suppliers' instructions for operation and maintenance of equipment and facilities,
- the availability and use of control measures [e.g. for ventilation, guarding, personal protective equipment (PPE), etc.],
- abnormal conditions (e.g. the potential interruption of utility services such as electricity and water, or other process failures),
- environmental conditions affecting the workplace,
- the potential for failure of plant and machinery components and safety devices or for their degradation from exposure to the elements or process materials,
- details of access to, and adequacy/condition of emergency procedures, emergency escape plans, emergency equipment, emergency escape routes (including signage), emergency communication facilities, and external emergency support, etc.,