

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

IMPORTANT

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Foreword

This Occupational Health and Safety Assessment Series (OHSAS) guideline, and OHSAS 18001:1999, *Occupational health and safety management systems — Specification*, have been developed in response to urgent 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 9001:1994, ISO 9001:2000 (Quality) and ISO 14001:1996 (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.

OHSAS 18002 will be reviewed or amended 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).

OHSAS 18001 and OHSAS 18002 will be withdrawn on publication of their contents in, or as, international standards.

The following documents were referenced during the development of this OHSAS guideline:

BS 8800:1996, *Guide to occupational health and safety management systems*.

Technical Report NPR 5001: 1997, *Guide to an occupational health and safety management system*.

SGS & ISMOL ISA 2000:1997, *Requirements for Safety and Health Management Systems*.

BVQI SafetyCert: *Occupational Safety and Health Management Standard*.

DNV *Standard for Certification of Occupational Health and Safety Management Systems (OHSMS):1997*

LRQA SMS 8800:1998, *Health & Safety management systems assessment criteria*.

Draft NSAI SR 320, *Recommendation for an Occupational Health and Safety. (OH and S) Management System*.

Draft AS/NZ 4801, *Occupational health and safety management systems - Specification with guidance for use*.

Draft BSI PAS 088, *Occupational health and safety management systems*.

UNE 81900 series of pre-standards on the prevention of occupational risks.

OHSAS 18002 will supersede some of these referenced documents.

OHSAS 18001 maintains a high level of compatibility with, and technical equivalence to UNE 81900.

For the United Kingdom:

- BSI-OHSAS 18002 is not a British Standard;
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This publication does not purport to include all necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this Occupational Health and Safety Assessment Series publication does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 62, an inside back cover and a back cover

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1 Scope

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

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.

This OHSAS guideline is applicable to occupational health and safety (OH&S) rather than product and services safety.

OHSAS 18001

1 Scope

This Occupational Health and Safety Assessment Series (OHSAS) specification gives requirements for an occupational health and safety (OH&S) management system, to enable an organization to control its OH&S risks and improve its 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 specification is applicable to any organization that wishes to:

- a) establish an OH&S management system to eliminate or minimize risk to employees and other interested parties who may be exposed to OH&S risks associated with its activities;
- b) implement, maintain and continually improve an OH&S management system;
- c) assure itself of its conformance with its stated OH&S policy;
- d) demonstrate such conformance to others;
- e) seek certification/registration of its OH&S management system by an external organization; or
- f) make a self-determination and declaration of conformance with this OHSAS specification.

All the requirements in this OHSAS specification 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 specification is intended to address occupational health and safety rather than product and services safety.

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 18001:1999, *Occupational health and safety management systems — Specification*.

BS 8800:1996, *Guide to occupational health and safety management systems*.

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

3 Terms and definitions

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

OHSAS 18001 Terms and definitions

3.1

accident

undesired event giving rise to death, ill health, injury, damage or other loss

3.2

audit

systematic examination to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable for achieving the organization's policy and **objectives** (see 3.9)

3.3

continual improvement

process of enhancing the OH&S management system, to achieve improvements in overall occupational health and safety performances, in line with the organization's OH&S policy

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

3.4

hazard

source or situation with a potential for harm in terms of human injury or ill health, damage to property, damage to the workplace environment, or a combination of these

3.5

hazard identification

process of recognizing that a **hazard** (see 3.4) exists and defining its characteristics

3.6**incident**

event that gave rise to an accident or had the potential to lead to an accident

NOTE An incident where no ill health, injury, damage, or other loss occurs is also referred to as a "near-miss". The term "incident" includes "near-misses".

3.7**interested parties**

individual or group concerned with or affected by the OH&S performance of an organization

3.8**nonconformance**

any deviation from work standards, practices, procedures, regulations, management system performance etc. that could either directly or indirectly lead to injury or illness, property damage, damage to the workplace environment, or a combination of these

3.9**objectives**

goals, in terms of OH&S performance, that an organization sets itself to achieve

NOTE Objectives should be quantified wherever practicable.

3.10**occupational health and safety**

conditions and factors that affect the well-being of employees, temporary workers, contractor personnel, visitors and any other person in the workplace

3.11**OH&S management system**

part of the overall management system that facilitates the management of the OH&S risks associated with the business of the organization. This includes the organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the organization's OH&S policy

3.12**organization**

company, operation, firm, enterprise, institution or association, or part 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.

3.13**performance**

measurable results of the OH&S management system, related to the organization's control of health and safety risks, based on its OH&S policy and objectives

NOTE Performance measurement includes measurement of OH&S management activities and results.

3.14

risk

combination of the likelihood and consequence(s) of a specified hazardous event occurring

3.15

risk assessment

overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable

3.16

safety

freedom from unacceptable risk of harm [ISO/IEC Guide 2]

3.17

tolerable risk

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

NOTE 1 Some reference documents, including BS 8800, use the term "risk assessment" to encompass the entire process of hazard identification, determination of risk, and the selection of appropriate risk reduction or risk control measures. OHSAS 18001 and OHSAS 18002 refer to the individual elements of this process separately and use the term "risk assessment" to refer to the second of its steps, namely the determination of risk.

NOTE 2 "Establishment" implies a level of permanency and the system should not be considered established until all its elements have been demonstrably implemented. "Maintenance" 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.

4 OH&S management system elements

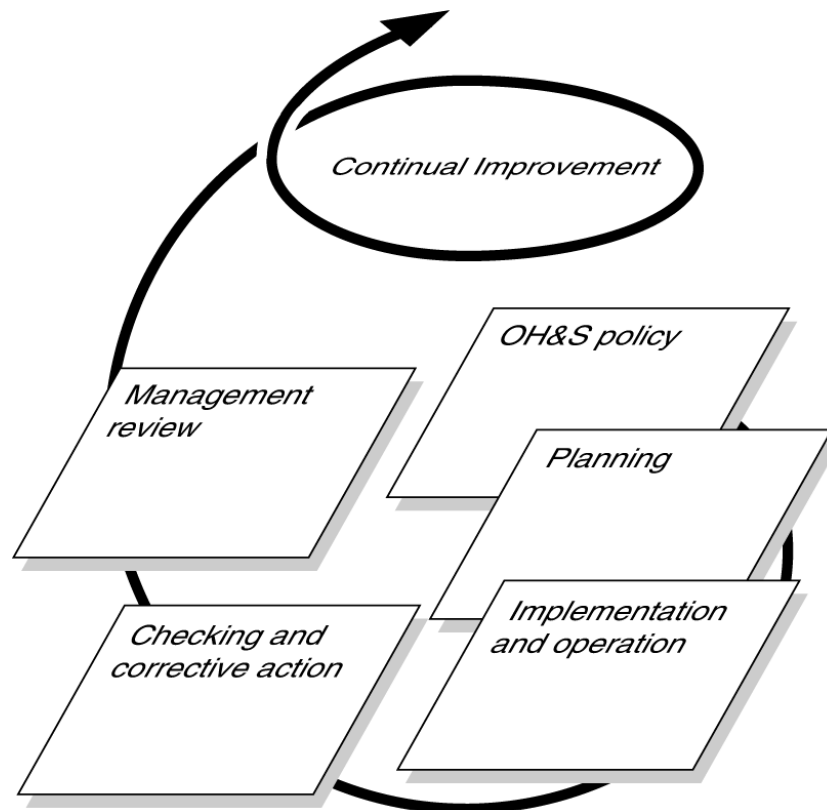


Figure 1 — Elements of successful OH&S management

4.1 General requirements

a) OHSAS 18001 requirement

The organization shall establish and maintain an OH&S management system, the requirements for which are set out in Clause 4.

b) Intent

The organization should establish and maintain a management system that conforms to all of the requirements of OHSAS 18001:1999. This should also assist the organization in meeting applicable legal or other OH&S regulations.

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 size of an organization and the nature of its activities.

An organization has the freedom and flexibility to define its boundaries and may choose to implement OHSAS 18001 with respect to the entire organization, or to specific operating units or activities of the organization.

Caution should be taken in defining the boundaries and scope of the management system. Organizations should not attempt to limit their scope so as to exclude from assessment, an operation or activity required for the overall operation of the organization, or that can impact on the OH&S of its employees and other interested parties.

If OHSAS 18001 is implemented for a specific operating unit or activity, the OH&S policies and procedures developed by other parts of the organization may be able to be used by the specific operating unit or activity to assist in meeting the requirements of OHSAS 18001. This may require that these OH&S policies or procedures are subject to minor revision or amendment, to ensure that they are applicable to the specific operation unit or activity.

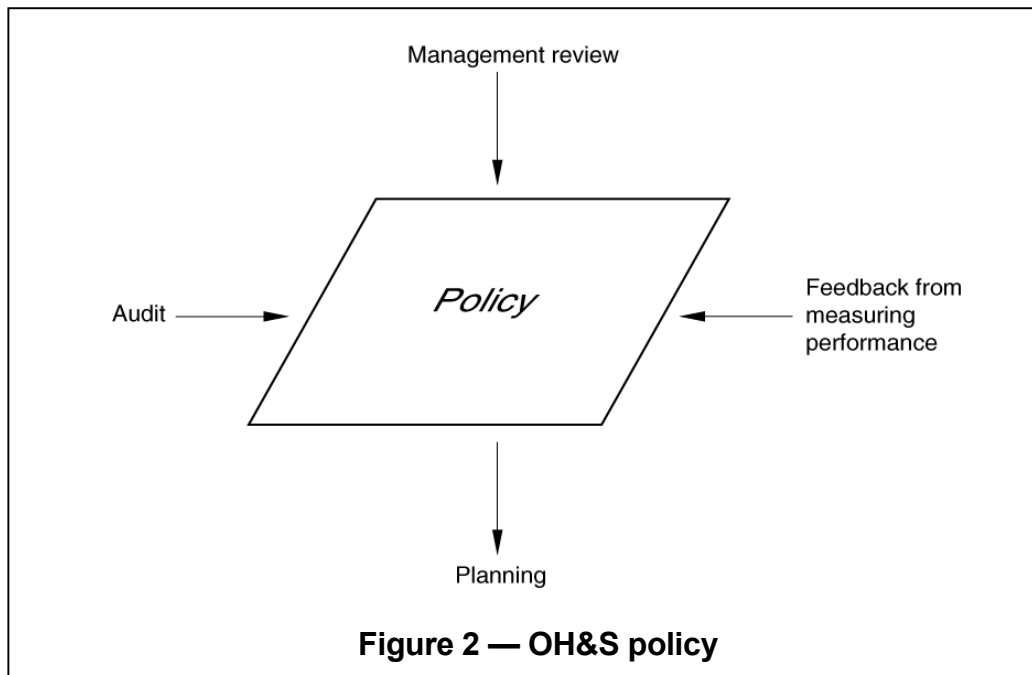
c) Typical input

All the input requirements for implementing OHSAS 18001 are described in the specification.

d) Typical output

A typical output is an effectively implemented and maintained OH&S management system that assists the organization in continually seeking for improvements in its OH&S performance.

4.2 OH&S policy



a) OHSAS 18001 requirement

There shall be an occupational health and safety policy authorized by the organization's top management, that clearly states overall health and safety objectives and a commitment to improving health and safety performance.

The policy shall:

- a) be appropriate to the nature and scale of the organization's OH&S risks;
- b) include a commitment to continual improvement;
- c) include a commitment to at least comply with current applicable OH&S legislation and with other requirements to which the organization subscribes;
- d) be documented, implemented and maintained;
- e) be communicated to all employees with the intent that employees are made aware of their individual OH&S obligations;
- f) be available to interested parties; and
- g) be reviewed periodically to ensure that it remains relevant and appropriate to the organization.

b) Intent

An OH&S policy establishes an overall sense of direction and sets the principles of action for an organization. It sets OH&S objectives for OH&S responsibility and performance required throughout the organization. It demonstrates the formal commitment of an organization, particularly that of the organization's top management, towards good OH&S management.

A documented OH&S policy statement should be produced and authorized by the organization's top management.

NOTE The OH&S policy 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.

c) Typical inputs

In establishing the OH&S policy, management should consider the following items:

- policy and objectives relevant to the organization's business as a whole;
- OH&S hazards of the organization;
- legal and other requirements;
- historical and current OH&S performance by the organization;
- needs of other interested parties;
- opportunities and needs for continual improvement;
- resources needed;
- contributions of employees;
- contributions of contractors and other external personnel.

d) Process

The organization's top management should draft and authorize an OH&S policy taking into account the points listed below. It is essential that the OH&S policy is communicated and promoted by the top management in the organization.

An effectively formulated and communicated OH&S policy should:

- 1) be appropriate to the nature and scale of the organization's OH&S risks;

Hazard identification, risk assessment and risk control are at the heart of a successful OH&S management system and should be reflected in the organization's OH&S policy.

The OH&S policy should be consistent with a vision of the organization's future. It should be realistic and should neither overstate the nature of the risks the organization faces, nor trivialize them.

- 2) include a commitment to continual improvement;

Societal expectations are increasing the pressure on organizations to reduce the risk of illness, accidents and incidents in the workplace. In addition to meeting legal responsibilities, the organization should aim to improve its OH&S performance, and its OH&S management system, effectively and efficiently, to meet changing business and regulatory needs.

Planned performance improvement should be expressed in the OH&S objectives (see **4.3.3**) and managed through the OH&S management programme (see **4.3.4**) although the OH&S policy statement may include broad areas for action.

3) include a commitment to at least conform to current applicable OH&S legislation and with other requirements to which the organization subscribes;

Organizations are required to conform to applicable OH&S legislation and other OH&S requirements. The OH&S policy commitment is a public acknowledgement by the organization that it has a duty to conform to, if not exceed, such legislation or other requirements, and that it intends doing so.

NOTE "Other requirements" can mean, for example, corporate or group policies, the organization's own internal standards or specifications, or codes of practice to which the organization subscribes.

4) be documented, implemented and maintained;

Planning and preparation are the key to successful implementation. Often, OH&S policy statements and OH&S objectives are unrealistic because there are inadequate or inappropriate resources available to deliver them. Before making any public declarations the organization should ensure that any necessary finance, skills and resources are available, and that all OH&S objectives are realistically achievable within this framework.

In order for the OH&S policy to be effective, it should be documented and be periodically reviewed for continuing adequacy, and amended or revised if needed.

5) be communicated to all employees with the intent that employees are made aware of their individual OH&S obligations;

The involvement and commitment of employees is vital for successful OH&S.

Employees need to be made aware of the effects of OH&S management on the quality of their own work environment and should be encouraged to contribute actively to OH&S management.

Employees (at all levels, including management levels) are unlikely to be able to make an effective contribution to OH&S management unless they understand their responsibilities and are competent to perform their required tasks.

This requires the organization to communicate its OH&S policies and OH&S objectives to its employees clearly, to enable them to have a framework against which they can measure their own individual OH&S performance.

NOTE Many countries have OH&S legislation or regulations that demand consultation and participation of employees in their organization's OH&S management systems.

6) be available to interested parties;

Any individual or group (either internal or external) concerned with or affected by the OH&S performance of the organization would be particularly interested in the OH&S policy statement. Therefore, a process should exist to communicate the OH&S policy to them. The process should ensure that interested parties receive the OH&S policy on request but need not necessarily provide for unsolicited copies.

7) be reviewed periodically to ensure that it remains relevant and appropriate to the organization.

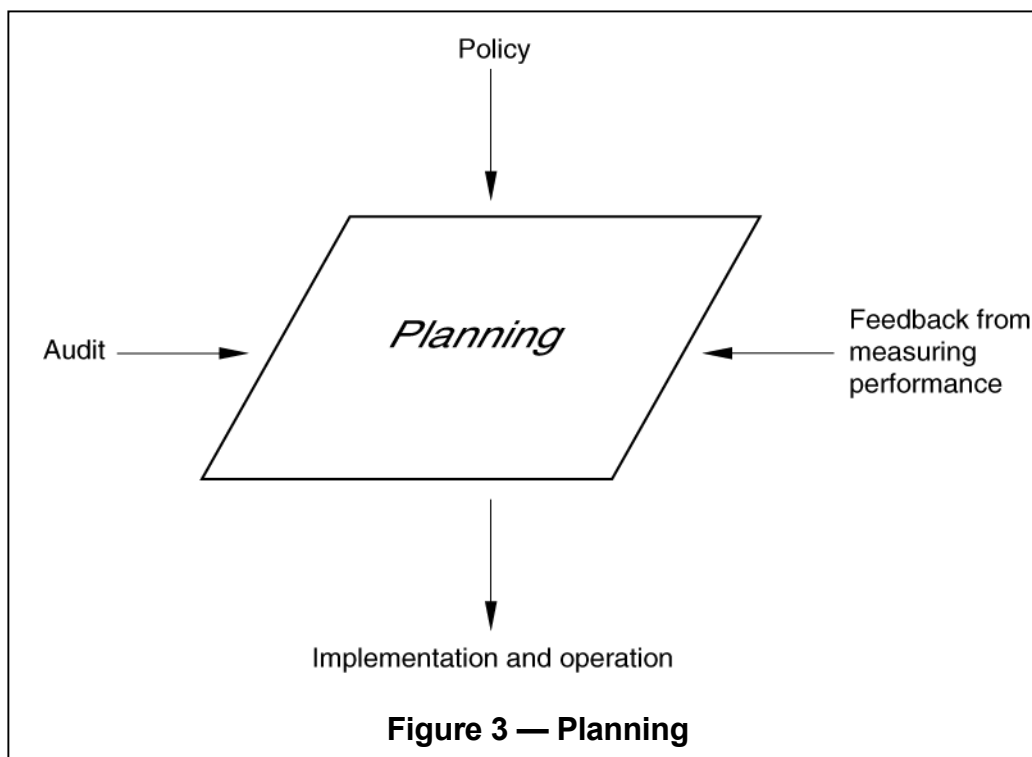
Change is inevitable, legislation evolves and societal expectations increase. Consequently, the organization's OH&S policy and management system needs to be reviewed regularly to ensure their continuing suitability and effectiveness.

If changes are introduced, these should be communicated as soon as practicable.

e) Typical output

A typical output is a comprehensive, understandable, OH&S policy that is communicated throughout the organization.

4.3 Planning



4.3.1 Planning for hazard identification, risk assessment and risk control

a) OHSAS 18001 requirement

The organization shall establish and maintain procedures for the ongoing identification of hazards, the assessment of risks, and the implementation of necessary control measures. These shall include:

- routine and non-routine activities;

- activities of all personnel having access to the workplace (including subcontractors and visitors);
- facilities at the workplace, whether provided by the organization or others.

The organization shall ensure that the results of these assessments and the effects of these controls are considered when setting its OH&S objectives. The organization shall document and keep this information up to date.

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

- be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive;
- provide for the classification of risks and identification of those that are to be eliminated or controlled by measures as defined in **4.3.3** and **4.3.4**;
- be consistent with operating experience and the capabilities of risk control measures employed;
- provide input into the determination of facility requirements, identification of training needs and/or development of operational controls;
- provide for the monitoring of required actions to ensure both the effectiveness and timeliness of their implementation.

b) Intent

The organization should have a total appreciation of all significant OH&S hazards in its domain, after using the processes of hazard identification, risk assessment and risk control.

NOTE Some reference documents, including BS 8800, use the term "risk assessment" to encompass the entire process of hazard identification, determination of risk, and the selection of appropriate risk reduction or risk control measures. OHSAS 18001 and OHSAS 18002 refer to the individual elements of this process separately and use the term "risk assessment" to refer to the second of its steps, namely the determination of risk.

The hazard identification, risk assessment and risk control processes and their outputs should be the basis of the whole OH&S system. It is important that the links between the hazard identification, risk assessment and risk control processes and the other elements of the OH&S management system are clearly established and apparent. Subclauses **4.3.1c)** and **4.3.1e)** give guidance on the links between the requirements of OHSAS 18001:1999, **4.3.1** and the other requirements of OHSAS 18001:1999.

The purpose of this OHSAS guideline is to establish principles by which the organization can determine whether or not given hazard identification, risk assessment and risk control processes are suitable and sufficient. It is not the purpose to make recommendations on how these activities should be conducted.

NOTE For further guidance on hazard identification, risk assessment and risk control processes see BS 8800.

The hazard identification, risk assessment and risk control processes should enable the organization to identify, evaluate and control its OH&S risks on an ongoing basis.

In all cases, consideration should be given to normal and abnormal operations within the organization, and to potential emergency conditions.

The complexity of hazard identification, risk assessment and risk control processes greatly depends on factors such as the size of the organization, the workplace situations within the organization, and the nature, complexity and significance of the hazards. It is not the purpose of OHSAS 18001:1999, **4.3.1**, to force small organizations with very limited hazards to undertake complex hazard identification, risk assessment and risk control exercises.

The hazard identification, risk assessment and risk control processes should take into account the cost and time of performing these three processes, and the availability of reliable data. Information already developed for regulatory or other purposes may be used in these processes. The organization may also take into account the degree of practical control it can have over the OH&S risks being considered. The organization should determine what its OH&S risks are, taking into account the inputs and outputs associated with its current and relevant past activities, processes, products and /or services.

An organization with no existing OH&S management system can establish its current position with regard to OH&S risks by means of an initial review. The aim should be to consider all OH&S risks faced by the organization, as a basis for establishing the OH&S management system. An organization may wish to consider including (but not limiting itself to) the following items within its initial review:

- legislative and regulatory requirements;
- identification of the OH&S risks faced by the organization;
- an examination of all existing OH&S management practices, processes and procedures;
- an evaluation of feedback from the investigation of previous incidents, accidents and emergencies.

A suitable approach to the initial review can include checklists, interviews, direct inspection and measurement, results of previous management system audits or other reviews depending on the nature of the activities.

It is emphasized that an initial review is not a substitute for the implementation of the structured systematic approach given in the rest of **4.3.1**.

c) Typical inputs

Typical inputs include the following items:

- OH&S legal and other requirements (see **4.3.2**);
- OH&S policy (see **4.2**);
- records of incidents and accidents;
- nonconformances (see **4.5.2**);
- OH&S management system audit results (see **4.5.4**);
- communications from employees and other interested parties (see **4.4.3**);
- information from employee OH&S consultations, review and improvement activities in the workplace (these activities can be either reactive or proactive in nature);
- information on best practice, typical hazards related to the organization, incidents and accidents having occurred in similar organizations;

- information on the facilities, processes and activities of the organization, including the following:
 - details of change control procedures;
 - site plan(s);
 - process flow-charts;
 - inventory of hazardous materials (raw materials, chemicals, wastes, products, sub-products);
 - toxicology and other OH&S data;
 - monitoring data (see 4.5.1);
 - workplace environmental data.

d) Process

1) *Hazard identification, risk assessment and risk control*

i) *General*

Measures for the management of risk should reflect the principle of the elimination of hazards where practicable, followed in turn by risk reduction (either by reducing the likelihood of occurrence or potential severity of injury or damage), with the adoption of personal protective equipment (PPE) as a last resort. Hazard identification, risk assessment and risk control processes are key tools in the management of risk.

Hazard identification, risk assessment and risk control processes vary greatly across industries, ranging from simple assessments to complex quantitative analyses with extensive documentation. It is for the organization to plan and implement appropriate hazard identification, risk assessment and risk control processes that suit its needs and its workplace situations, and to assist it to conform to any OH&S legislative requirements.

Hazard identification, risk assessment and risk control processes should be carried out as proactive measures, rather than as reactive ones, i.e. they should precede the introduction of new or revised activities or procedures. Any necessary risk reduction and control measures that are identified should be implemented before the changes are introduced.

The organization should keep its documentation, data and records concerning the identification of hazards and the assessment and control of risks up-to-date in respect of ongoing activities, and also extend them to cover new developments and new or modified activities, before these are introduced.

Hazard identification, risk assessment and risk control processes should not only be applied to "normal" operations of plant and procedures, but also to periodic or occasional operations/procedures such as plant cleaning and maintenance, or during plant start-ups/shut-downs.

The existence of written procedures to control a particular hazardous task does not remove the need for the organization to continue to perform hazard identification, risk assessment and risk control processes on that operation.

As well as considering the hazards and risks posed by activities carried out by its own personnel, the organization should consider hazards and risks arising from the activities of contractors and visitors, and from the use of products or services supplied to it by others.

ii) *Hazard identification, risk assessment and risk control processes*

The hazard identification, risk assessment and risk control processes should be documented and should include the following elements:

- identification of hazards;
- evaluation of risks with existing (or proposed) control measures in place (taking into account exposure to specific hazards, the likelihood of failure of the control measures, and the potential severity of consequences of injury or damage);
- evaluation of the tolerability of residual risk;
- identification of any additional risk control measures needed;
- evaluation of whether the risk control measures are sufficient to reduce the risk to a tolerable level.

Additionally, the processes should include the definition of the following items:

- the nature, timing, scope, and methodology for any form of hazard identification, risk assessment and risk control that is to be used;
- applicable OH&S legislation or other requirements;
- the roles and authorities of personnel responsible for performing the processes;
- the competency requirements and training needs (see **4.4.2**) for personnel who are to perform the processes. (Depending on the nature or type of processes to be used, it may be necessary for the organization to use external advice or services);
- the use of information from employee OH&S consultations, review and improvement activities (these activities can be either reactive or proactive in nature);
- how consideration should be given to the risk of human error within the processes being examined;
- the hazards posed by materials, plant or equipment that degrade over time, particularly when such materials, plant, or equipment is in storage.

iii) *Subsequent actions*

Following the performance of the hazard identification, risk assessment and risk control processes:

- there should be clear evidence that any corrective or preventive actions (see **4.5.2**) identified as being necessary are monitored for their timely completion (these may require that further hazard identification and risk assessments be conducted, to reflect proposed changes to risk control measures and to determine revised estimates of the residual risks) ;

- feedback on the results, and on progress in the completion of corrective or preventive actions, should be provided to management, as input for management review (see 4.6) and for the establishment of revised or new OH&S objectives;
- the organization should be in a position to determine whether the competency of personnel performing specific hazardous tasks is consistent with that specified by the risk assessment process in establishing the necessary risk controls;
- feedback from subsequent operating experience should be used to amend the processes, or the data on which they are based, as applicable.

2) Review of hazard identification, risk assessment and risk controls (see also 4.6)

The hazard identification, risk assessment and risk control process should be reviewed at a pre-determined time or period as set out in the OH&S policy document or at a time pre-determined by management. This period can vary depending on the following considerations:

- the nature of the hazard;
- the magnitude of the risk;
- changes from normal operation;
- changes in feedstocks, raw materials, chemicals, etc.

The review should also take place if changes within the organization call into question the validity of the existing assessments. Such changes can include the following elements:

- expansion, contraction, restructuring;
- reapportioning of responsibilities;
- changes to methods of working or patterns of behaviour.

e) Typical outputs

There should be documented procedure(s) for the following elements:

- identification of hazards;
- determination of the risks associated with the identified hazards;
- indication of the level of the risks related to each hazard, and whether they are, or are not, tolerable;
- description of, or reference to, the measures to monitor and control the risks (see 4.4.6 and 4.5.1), particularly risks that are not tolerable;
- where appropriate, the OH&S objectives and actions to reduce identified risks (see 4.3.3), and any follow-up activities to monitor progress in their reduction;