

AS/NZS 4804:2001

Australian/New Zealand Standard™



O

ccupational
health and safety
management systems—

*General guidelines on principles, systems
and supporting techniques*



Standards Australia



STANDARDS
NEW ZEALAND
Teaerewa Aotearoa

AS/NZS 4804:2001

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Australian/New Zealand Standard™

Occupational health and safety management systems—General guidelines on principles, systems and supporting techniques

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-001, Occupational Health and Safety Management to supersede AS/NZS 4804:1997.

The objective of this Standard is to provide guidance on—

- (a) how such an occupational health and safety management system (OHSMS) may be set up;
- (b) how it can be continually improved; and
- (c) what resources may be used to do this.

Readers wanting certification for an organization's OHSMS or an internal review of their system are referred to AS/NZS 4801, *Occupational health and safety management systems—Specification with guidance for use*.

The objective of this revision is to align this Standard closely with AS/NZS 4801:2001 by removing differences in definitions and the use of technical terms that could confuse readers.

Most notably the terms '*hazard/risk assessment*' and '*control of hazards/risks*' are used to accommodate the different terminology used in Australia and New Zealand to describe similar elements of the systematic management of occupational health and safety.

Hazard/risk assessment refers to the process of *hazard assessment* in New Zealand, and *risk assessment* in Australia.

Similarly, *control of hazards/risks* refers to the processes of *control of hazards* in New Zealand, and *control of risks* in Australia.

It is the intention of Committee SF-001, that the next revision of this Standard fully revise its content. It is also intended that the next revision will take place at the same time as the revision of AS/NZS 4801.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

Use of this Standard may not necessarily meet your OHS legal obligations.

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Foreword

The adoption and implementation of a range of effective occupational health and safety (OHS) management actions in a systematic manner can contribute to optimal outcomes for all interested parties. Organizations of all kinds and sizes adopt a systematic approach to managing OHS and develop OHS management systems (OHSMS) within the context of:

- The general growth of concern from all interested parties about OHS matters.
- Changes to legislation.
- Other measures to foster sustained OHS improvement.

There are many reasons why organizations implement an OHSMS including legal imperatives, ethical concerns, industrial relations considerations and to improve financial performance. Implementation of an effective OHSMS should, however, primarily lead to a reduction of workplace illness and injury, minimizing the costs associated with workplace accidents. OHSMS are also used by some organizations to demonstrate, internally and in some cases externally (via self-declaration or certification/registration as appropriate), that they are systematically controlling the risks to all persons affected by the organization's activities, products or services.

For organizations wishing to implement, develop, improve, or in some cases audit an OHSMS, a pair of linked and complementary Standards is available to provide guidance. This Standard is the primary Standard relevant to all organizations and provides general guidance on how to implement, develop and/or improve an OHSMS. AS/NZS 4801, *Occupational health and safety management systems—Specification with guidance for use* establishes an audit framework principally for use by third party bodies that have been asked by an organization to conduct an independent audit of the organization's OHSMS. The framework can also be used as a reference point for internal auditing procedures. It is envisaged that not all users of this primary Standard, AS/NZS 4804, will need to use AS/NZS 4801 as illustrated below.



AS/NZS 4804

AS/NZS 4801

This Standard provides general guidance on:

- How to set up an OHSMS.
- How to continually improve an OHSMS.
- The resources required to set up and continually improve an OHSMS.

The guidelines in this Standard describe a systematic management approach that can assist in both meeting legal requirements and lead to sustained improvement in OHS performance. These guidelines can assist organizations establish their own OHSMS and they also apply to any existing OHSMS. The guidelines do not prescribe the type or format or style of OHSMS that should be used. Rather, this Standard contains guidance for organizations of any size or type seeking to develop and implement an OHSMS, or improve an existing system, so that it will—

- be appropriate for that organization;
- be integrated with other systems and core functions of the organization;
- improve the organization's overall performance; and
- assist the organization to meet its legal responsibilities.

Injury management is an important element of any system but has been referred to only peripherally in AS/NZS 4804. The reader is referred elsewhere, to their respective jurisdictional authorities for guidance e.g. in Australia, to National Occupational Health and Safety Commission's *Guidance note for the best practice rehabilitation management of occupational injuries and disease*, NOHSC:3021 (1995); similarly, in New Zealand, *Active and Working! Managing Acute Low Back Pain in the Workplace: A guide for employers* published by the National Advisory Committee on Health and Disability, and the Accident Compensation Corporation, April 2000.

AS/NZS 4801 is a specification Standard that establishes a framework primarily for enabling independent external audits and reviews of an organization's OHSMS, but it can also be used as a framework for internal audits. Many organizations already undertake internal audits or reviews to assess the effectiveness of their OHSMS. Some organizations may also seek independent third party assurances that an organization they are proposing to do business with has effective systems in place to control their OHS. To be effective, and to contribute to ongoing improvements in OHS performance, independent audits need to be conducted by competent persons within a structured management system and integrated with overall management activity. AS/NZS 4801 specifies the framework against which external auditors will assess an OHSMS. However, these audits and reviews would not be sufficient to provide an organization with the assurance that its performance not only meets, but will continue to meet, its ethical, legal and policy requirements.

These linked Standards have been written to be applicable to all types and sizes of organizations and to be generic enough to accommodate diverse geographical, cultural and social conditions, as well as the multiplicity of OHS legal jurisdictions. Thus two organizations carrying out similar activities but having different OHSMS and performances may both conform to the requirements established in AS/NZS 4801. However, any effective OHSMS needs to reflect OHS issues in the organization in which it is used. The basis of the approach is shown in Figure 1.

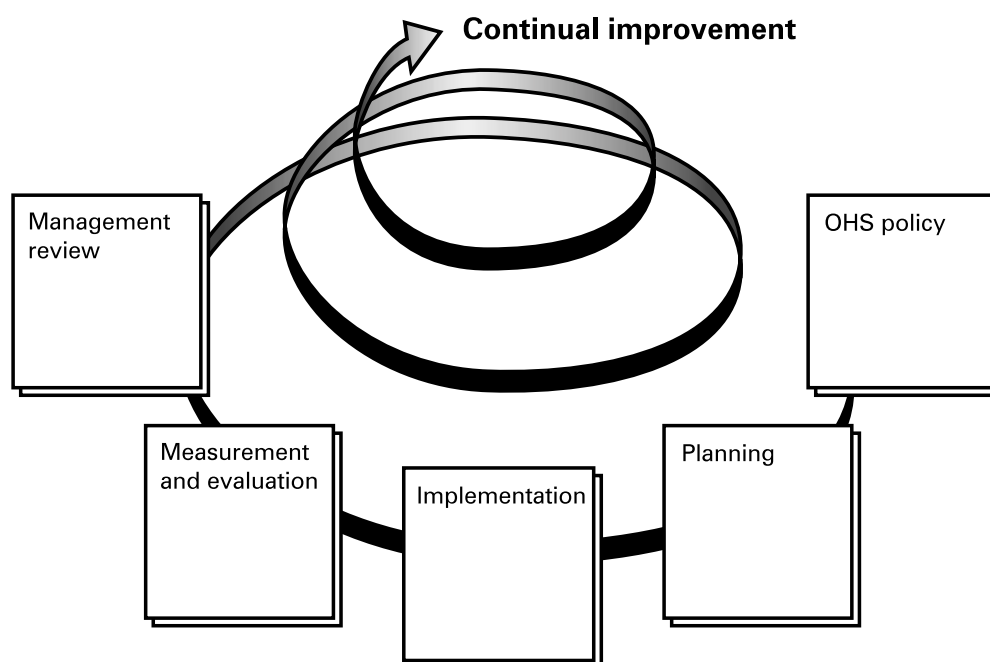


Figure 1 OHS Management System Model

The success of an OHSMS depends on commitment from all levels and functions within an organization, especially from senior management. An effective OHSMS can assist an organization to—

- set out OHS policy and objectives;
- establish, assess and review the effectiveness of procedures which give effect to OHS policy and objectives;
- achieve conformance with OHS policy and objectives of the organization; and
- demonstrate such conformance to others (via self-declaration or certification/ registration as appropriate).

The overall aim of these linked Standards is to support the achievement of the highest levels of OHS performance through systematic elimination or reduction of risks. Both AS/NZS 4801 and this Standard are intended to provide organizations with the elements of an effective OHSMS which can be integrated with other management requirements, to assist organizations to achieve OHS as well as other social and economic goals. These Standards are not intended to be used to create trade barriers nor change an organization's legal obligations. They are voluntary, useful tools for businesses and governments to use as little or as much as they choose.

Legislation in Australia adopts a risk management approach. Legislation in New Zealand adopts a hazard management approach. This legislation may also emphasize a preferred order of control method (often called a hierarchy of controls) which should be implemented in the workplace. The various jurisdictions define this hierarchy in different ways. Readers should note this and will need to ensure that the Standards are used to suit compliance requirements in their jurisdictions.

The emphasis in much legislation and in these Standards is for organizations to develop and implement control actions which, wherever possible, eliminate hazards or isolate people from the hazard. Where this is not possible, work activities should be planned and controlled through administrative means to the extent necessary to prevent injury and illness. In order to achieve these objectives an organization should encourage the implementation of the best practicable methods and technology consistent with the legal obligations to ensure that workplaces are safe and healthy.

These Standards share common management systems principles with environmental management systems Standards such as AS/NZS ISO 14001:1996, *Environmental management systems—Specification with guidance for use* and quality systems Standards like AS/NZS ISO 9001:2000, *Quality systems management—Requirements*, and encourage the integration of such management system standards. However, AS/NZS 4801 and this Standard are more aligned to risk management philosophies and methods as set out in AS/NZS 4360:1999, *Risk management* than are quality management systems standards.

The requirements set out in AS/NZS 4801 and this Standard do not need to be implemented independently of existing OHSMS elements, whether integrated or not. In some cases, existing OHSMS elements will meet the requirements. An organization may elect to continue to use any management system framework, structure or audit tool as required. There may be no need to change an existing OHSMS program or audit framework. This Standard and AS/NZS 4801 can be applied to any OHSMS.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Occupational health and safety management
systems—General guidelines on principles,
systems and supporting techniques

1 Scope

This Standard provides guidance on the development and implementation of occupational health and safety management systems (OHSMS) and principles, and their integration with other management systems.

The Guidelines are applicable to any organization, regardless of size, type, or level of maturity, that is interested in developing, implementing or improving an OHSMS.

The Guidelines are intended for use as a voluntary, internal management tool and are not intended for use by OHSMS certification/registration bodies as a specification standard.

Effective implementation of an OHS management system should seek to ensure the organization complies with relevant OHS legislation, standards and codes of practice. However, the implementation of any of the part of this Standard, does not in any way assure compliance with legal requirements, or other obligations placed upon the organization by a statutory body. Hence, the implementation, either actual or intended, of this Standard, or parts thereof, would not preclude any action by a statutory body.

2 Referenced documents

The following documents are referred to in this Standard:

AS

- | | |
|--------|--|
| 1885 | Measurement of occupational health and safety performance |
| 1885.1 | Part 1: Describing and reporting occupational injuries and disease (known as the National Standard for workplace injury and disease recording) |

AS/NZS

- | | |
|------|---|
| 3931 | Risk analysis of technological systems — Application guide |
| 4360 | Risk management |
| 4801 | Occupational health and safety management systems—Specification with guidance for use |

AS/NZS ISO

- | | |
|-------|--|
| 14004 | Environmental management systems—General guidelines on principles, systems and supporting techniques |
|-------|--|

3 Definitions

For the purpose of this Standard, the definitions below apply.

3.1 Audit

A systematic examination against defined criteria to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the organization's policy and objectives.

3.2 Competent person

A person who has acquired, through training, qualification, or experience, or a combination of these, the knowledge and skills, including OHS knowledge and skills, qualifying that person to perform the task required by this Standard.

3.3 Continual improvement

Process of enhancing the OHSMS, to achieve improvements in overall OHS performances, in line with the organization's OHS policy.

NOTE:

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

3.4 Control of hazards/risks

In Australia, the term 'control of risks' is used, to mean the process of elimination or minimization of risks.

In New Zealand, the term 'control of hazards' is used to mean the process of elimination, isolation or minimization of significant hazards.

3.5 Hazard

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

3.6 Hazard identification

The process of recognizing that a hazard exists and defining its characteristics.

3.7 Hazard/risk assessment

In Australia, the term 'risk assessment' is used to mean the overall process of estimating the magnitude of risk and deciding what actions will be taken.

In New Zealand, the term 'hazard assessment' is used to mean the overall process of determining whether a hazard is significant.

3.8 Health surveillance

Monitoring of individuals for the purpose of identifying changes in health status that may be due to occupational exposure to a hazard.

3.9 Incident

Any unplanned event resulting in, or having a potential for injury, ill-health, damage or other loss.

3.10 Interested parties

Individuals or group concerned with, or affected by the OHS performance of an organization.

3.11 Occupational health and safety management system (OHSMS)

That part of the overall management system which includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the OHS policy, and so managing the risks associated with the business of the organization.

3.12 Occupational health and safety objectives

Overall OHS goal in terms of OHS performance, arising from the occupational health and safety policy that an organization sets itself to achieve, and which are quantified where practicable.

3.13 Occupational health and safety performance

The measurable results of the OHSMS, related to the organization's control of health and safety risks, based on its OHS policy, objectives and targets. Performance measurement includes measurement of OHS management activities and results.

3.14 Occupational health and safety policy

Statement by the organization of its commitment, intentions and principles in relation to its overall occupational health and safety performance which provides a framework for action and for the setting of its occupational health and safety objectives and targets.

3.15 Occupational health and safety professional

A person with expertise and qualifications in the identification, assessment, evaluation or control of occupational hazards and risks, and hazards associated with occupational ill-health.

3.16 Occupational health and safety target

A detailed performance requirement, quantified wherever practicable and pertaining to the organization, that arises from the health and safety objectives, and that needs to be met in order to achieve those objectives.

3.17 Organization

A company, corporation, firm, enterprise or institution, or other legal entity or part thereof, whether incorporated or not, public or private, that has its own function(s) and administration.

3.18 Risk

(In relation to any potential injury or harm.) The likelihood and consequence of that injury or harm occurring.

NOTE:

Wherever the term 'risk' occurs in this Standard this should be taken to mean 'occupational health and safety risk'.

3.19 Safety

A state in which the risk of harm (to persons) or damage is limited to an acceptable level.

4 OHSMS principles and elements

The OHSMS model incorporates the following principles within an upward spiral of continual improvement as part of the organization's overall management system. (See Figure 1 in the Foreword.)

Principle 1 Commitment and policy

An organization should define its OHS policy and ensure commitment to its OHSMS.

Principle 2 Planning

An organization should plan to fulfil its OHS policy, objectives and targets.

Principle 3 Implementation

For effective implementation, an organization should develop the capabilities and support mechanisms necessary to achieve its OHS policy, objectives and targets.

Principle 4 Measurement and evaluation

An organization should measure, monitor and evaluate its OHS performance, and take preventive and corrective action.

Principle 5 Review and improvement

An organization should regularly review and continually improve its OHSMS, with the objective of improving its OHS performance.

With these principles in mind, the OHSMS is best viewed as an organizing framework able to provide effective direction for an organization's OHS activities in response to changing internal and external factors.

As the organization grows in experience, procedures, programs and technologies can be put in place to further improve OHS performance. As the OHSMS matures, OHS considerations should be integrated into all business decisions.

4.1 Commitment and policy

Principle 1 Commitment and policy

An organization should define its OHS policy and ensure commitment to its OHSMS.

4.1.1 General

To be effective, an OHSMS requires the participation and support of all parts of the organization. Gaining this commitment from people requires senior management to demonstrate a corporate commitment through leadership and the allocation of resources.

4.1.2 Leadership and commitment

Successful change can be accomplished by effective leadership and commitment in the areas of—

- (a) determining the organization's current position on OHS;
- (b) resource allocation including setting budgets, responsibilities, authority and accountability;
- (c) coordinated management planning and agreed delegations;
- (d) decisions followed through and performance assessed;
- (e) communication of the values and policies unambiguously throughout the organization; and
- (f) management demonstrating their commitment by their own actions.

Regular review of OHS at senior management level reinforces its importance to the organization's success in meeting its commercial objectives and legal obligations.

Everyone in the organization should be aware of the influence that their actions and inaction can have on the effectiveness of the system. They should also participate in the establishment and maintenance of the OHS controls, as well as assisting in OHS planning.

4.1.3 Initial OHS review

The current position of an organization with regard to OHS should be established by means of an initial review of its current OHS arrangements to—

- (a) identify hazards associated with the organization's activities;
- (b) identify the OHS, legislative and other requirements applicable to its particular workplace activities;
- (c) assess compliance with the identified legislative and other requirements;
- (d) review past experience with incidents and results of any previous assessments, compensation experience, and disruption associated with OHS;
- (e) assess efficiency and effectiveness of existing resources devoted to OHS management; and
- (f) identify gaps between any existing systems in place and these guidelines.

This information will guide the organization in the planning of the progressive implementation of the elements of the system.

Practical help: Initial OHS review**1 Elements to be considered**

Every organization will find that it has elements of an OHSMS in place. What is less common is the linking of these elements into a coordinated overall system to improve the OHS performance.

A useful starting point is to compare the basic intent of each element in these Guidelines with management practices and procedures which are currently being used in the organization. Obsolete practices might be in place. Organizations need to compare these Guidelines with what actually occurs in order to obtain a realistic assessment of what needs to be done to implement the Guidelines.

Core elements which could be examined are—

- (a) clearly defined management responsibility and accountability for OHS;
- (b) identification of hazards, associated risks and their management;
- (c) documentation of procedures associated with the management of hazardous activities;
- (d) OHS inspections of hazardous plant; and
- (e) training.

Other elements can be progressively implemented in accordance with organizational needs and priorities.

2 Methods of review

Some common techniques for initial review include:

- (a) Questionnaires.
- (b) Interviews.
- (c) Checklists.
- (d) Inspection and measurement.
- (e) Assessments, internal and external, including audits. Review of records.
- (g) Comparisons with similar organizations.

3 Sources of help

Sources of information include:

- (a) Disease, incident and first aid records kept by the organization or by industry associations and governments.
- (b) Workers' compensation experience. Insurance companies are able to provide feedback on an organization's claims experience and the breakdown of the components of the insurance premium and how these compare within an industry group.

- (c) Other data an organization holds on absenteeism, sick leave and industrial disputation should provide indirect pointers to areas of poor OHS management.

Other sources which should be able to assist include:

- (i) Government agencies in relation to laws and permits.
- (ii) Local or regional libraries or databases.
- (iii) Other organizations for exchange of information.
- (iv) Industry and employer associations.
- (v) Employee associations or unions.
- (vi) Larger customer organizations.
- (vii) Suppliers of equipment.
- (viii) OHS professionals.

4.1.4 OHS policy

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

The policy should —

- (a) be appropriate to the nature and scale of the organization's risks;
- (b) include the commitment to establish measurable objectives and targets to ensure continued improvement aimed at elimination of work-related injury and illness;
- (c) include a commitment to comply with relevant OHS legislation and with other requirements placed upon the organization or to which the organization subscribes;
- (d) be documented, implemented, maintained and communicated to all employees;
- (e) be available to interested parties; and
- (f) be reviewed periodically to ensure it remains relevant and appropriate to the organization.

The policy is intended to clearly inform employees, suppliers, customers and other interested parties that OHS is an integral part of all operations. This commitment is further reinforced by management being actively involved in the review and continual improvement of OHS performance.

Practical help: OHS Policy

The following questions can aid in establishing or rewriting an organization's OHS policy:

- | | |
|--|--|
| (a) Commitment, integration and relevance | <p>Does the policy express a commitment to OHS management?</p> <p>Is the policy integral and relevant to the organization's —</p> <ul style="list-style-type: none"> (i) mission statement, vision, core values and beliefs; (ii) overall management system; and (iii) activities, products and services? |
| (b) Compliance | <p>Does the policy express a commitment to legislative compliance and —</p> <ul style="list-style-type: none"> (i) other criteria that may not always be legally binding but have evidentiary status such as State/Territory/Comcare/NZ approved codes of practice (which should call upon NOHSC Codes of Practice and Australian and New Zealand Standards); and (ii) industry or internal company performance standards? |
| (c) Accountability | <p>Does the OHS policy address accountability in terms of —</p> <ul style="list-style-type: none"> (i) capacity to assign/delegate, deliver, and review the Policy's commitments; (ii) including OHS accountability in all position descriptions; (iii) establishing a framework for setting of objectives and targets to minimize work-related injury and illness; and (iv) allocating adequate resources to fulfil the aims of the policy? |

(d) Consultation	<p>Does the policy promote consultation with —</p> <ul style="list-style-type: none"> (i) employees and their representatives; (ii) line managers; (iii) OHS committees; (iv) contractors and subcontractors; (v) suppliers; (vi) clients; and (vii) independent experts?
(e) Prevention	Has the policy adopted a preventive approach?

4.2 Planning

Principle 2 Planning

An organization should plan to fulfil its OHS policy, objectives and targets.

4.2.1 General

The successful implementation and operation of an OHSMS requires an effective planning process with well defined and measurable outcomes. Planning is essential for both the initial implementation of an overall management system and for specific elements that make up the system. The initial review (Clause 4.1.3) of the organization's position provides a planning framework for the implementation of an OHSMS. Objectives, targets and performance indicators should be established and plans made to achieve them.

The planning process should address the regular identification of hazards, hazard/risk assessment and control of hazards/risks associated with the activities of the organization as well as any related legal requirements.

Practical help: Planning

Planning is undertaken in consultation with the relevant work areas affected by the process.

Planning needs to address schedules, resources and responsibilities for achieving the organization's OHS objectives and targets. Such planning (and resulting plans) can cover a number of areas. For example:

- (a) Planning undertaken to establish or to improve an OHSMS.
- (b) Specific OHS plans for the control of hazards/risks in the workplace.

- (c) Contingency plans to meet foreseeable emergencies (e.g. first aid, evacuation, and clean up).
- (d) Plans for taking corrective action following incidents or following the breakdown of system requirements.

The level and complexity of planning should be commensurate with the size, complexity and nature of the organization and its associated hazards or risks. Consequently, in smaller organizations many of these types of plans may be combined.

4.2.2 Planning identification of hazards, hazard/risk assessment and control of hazards/risks

The organization should establish, implement and maintain documented procedures for hazard identification, hazard/risk assessment and control of hazards/risks of activities, products and services over which an organization has control or influence, including activities, relevant relationships with contractors or suppliers.

The organization should develop its methodology for hazard identification, hazard/risk assessment and control of hazards/risks based on its operational experience and its commitment to eliminate workplace illness and injury. The methodology should be kept up-to-date.

The specific application of hazard identification and hazard/risk assessment and control procedures should be likewise part of the ongoing planning process.

4.2.3 Legal and other requirements

The organization should establish, implement, and maintain procedures to identify and have access to all legal and other requirements, that are directly attributable to the OHS issues related to its activities, products or services including relevant relationships with contractors or suppliers.

The organization should keep this information up-to-date. It should communicate relevant information on legal and other requirements to its employees.

Practical help: Legal and other requirements

In maintaining regulatory compliance, the organization should identify and understand regulatory requirements applicable to its activities, products or services. Regulations cover several aspects including—

- (a) those specific to an activity (e.g. confined spaces regulations);
- (b) those specific to the organization's products or services;
- (c) those specific to the organization's industry;
- (d) general OHS laws; and
- (e) authorizations, licences and permits.

Several sources can be used to identify OHS regulations and ongoing changes, including—

- (i) all levels of government;
- (ii) industry and employer associations;
- (iii) employee associations and unions;
- (iv) commercial databases; and
- (v) professional services.

To facilitate keeping track of legal requirements, an organization can establish and maintain a list of all laws and regulations pertaining to its activities, products or services.

4.2.4 Objectives and targets

The organization should establish, implement and maintain documented OHS objectives and targets to meet the organization's OHS policy. These objectives are the overall goals for OHS performance identified in the OHS policy, and provide the organization with the means to evaluate its OHS performance.

Objectives and targets can apply broadly across an organization or more narrowly to site-specific or individual activities. Appropriate levels of management should define the objectives and targets.

The initial review provides users with information concerning the current status of their OHSMS. This information can then be used to identify those work areas, practices or activities at all levels within the organization where OHS performance is less than optimal. Objectives and targets, consistent with the organization's OHS policy, should then be set based on improving OHS performance in these work areas, practices or activities.

Objectives should be aimed at improvements in OHS performance and supported by targets which are clear, quantifiable, realistic and time bound.

Objectives and targets should be regularly reviewed and revised based on past performance and in consultation with workplace personnel, OHS professionals, insurers and other appropriate persons or groups.

4.2.5 Performance indicators

When the objectives and targets are set, the organization should consider establishing measurable OHS performance indicators. Performance indicators provide information on what is happening. They can be outcome based, in reflecting system or operational performance, (e.g. rate of injury) or input based (e.g. number of audits performed, number of inspections conducted or percentage of job descriptions made to include OHS requirements). The latter example may also be called a positive or leading performance indicator as it relates to actions taken to prevent injury and illness.

Practical help: Objectives, targets and performance indicators

Objectives state what is intended to be accomplished and targets define a performance level time frame.

Performance indicators are the means by which we measure whether objectives are met. They are measures such as rates, ratios or indices which reflect how well the OHSMS or its elements are performing.

An example of an 'outcome'(operational)/performance indicator would be as follows:

(a) *Objective*

Eliminate injuries associated with fork lift trucks.

(b) *Target*

Zero injuries in a financial year.

(c) *Indicator*

Percentage of injuries associated with fork lift trucks.

An example of an 'input' (management) performance indicator in use would be the following:

(i) *Objective*

Provide OHS induction training for all new employees.

(ii) *Target*

Training to be provided in first week of employment.

(iii) *Indicator*

Percentage of new employees given OHS induction training in first week.

4.2.6 OHS management plans

The successful initial implementation of an OHSMS requires plans to be developed that clearly set out how the objectives and targets for the introduction of a management system will be achieved by—

- (a) designating responsibility for achievement of objectives and targets at relevant functions and levels of the organization; and
- (b) outlining the means and timeframe by which objectives and targets are to be achieved.

In addition to the initial planning phase, procedures should be established to ensure planning is undertaken in the ongoing operations of the organization. Operational plans to address specific OHS issues in an organization's operations need to be developed and implemented. (These are sometimes described as

annual operational plans or as the OHS program). Where there are changes to the activities, products or services of the organization (e.g. introduction of new products) or significant changes in operating conditions (e.g. change of location), procedures need to be established to ensure current plans are amended to address such changes.

4.3 Implementation

Principle 3 Implementation

For effective implementation, an organization should develop the capabilities and support mechanisms necessary to achieve its OHS policy, objectives and targets.

4.3.1 General

To achieve its OHS objectives an organization should involve its people as well as focus and align its systems, strategy, resources and structure.

4.3.2 Ensuring capability

4.3.2.1 Resources—Human, physical, and financial

The appropriate human, physical (e.g. facilities, equipment), and financial resources essential to the implementation of an organization's OHS policies and the achievement of its objectives should be defined and made available. In allocating resources, organizations can develop procedures to track the benefits as well as the costs of their activities, products or services, incidents, rehabilitation and the like.

In organizing the implementation and effective management of its OHS policy, an organization needs to be aware of the following:

- (a) Allocate adequate resources commensurate with its size and nature.
- (b) Identify the competencies required, at all levels within the organization, and organize any necessary training.
- (c) Make arrangements for the effective communication of OHS information.
- (d) Make effective arrangements for the provision of specialist advice and services.
- (e) Make effective arrangements for employee consultation and active involvement.

Practical help: Human, physical and financial resources

The resource base, structure, and size of organizations may impose constraints on implementation. In order to overcome these constraints external OHS resources may be utilized. Such resources might include—

- (a) shared technology and experience from larger client organizations;
- (b) cooperative approaches to develop industry specific guidance material and strategies;
- (c) support from industry and employer associations or principal contractors and owners;
- (d) assistance from government health and safety organizations;
- (e) the use of consultants and the collective engagement of consultants;
- (f) provision of advice and training from suppliers;
- (g) assistance provided by workers' compensation insurance agents;
- (h) attendance at health and safety seminars; and
- (i) mutually beneficial support from universities and other research centres.

Organizations should focus on utilizing cooperative strategies to implement and maintain an effective OHSMS.

4.3.2.2 Integration

An organization which has an existing documented and implemented management system may find it convenient to extend the system to address and integrate an OHSMS. Other organizations may prefer to introduce a separately documented system.

Management system elements that can benefit from integration include—

- (a) organization policies;
- (b) resource allocation;
- (c) operational controls and documentation;
- (d) information and support systems;
- (e) training and development;
- (f) organization and accountability structure;
- (g) reward and appraisal systems;
- (h) measuring and monitoring systems; and
- (i) communication and reporting.

4.3.2.3 Accountability and responsibility

In order to ensure effective development and implementation of an OHSMS it is necessary for the organization to define the areas of accountability and responsibility of those personnel involved in the OHSMS operation.

While ultimate accountability for OHS rests with the employer, the organization should—

- (a) define, designate, document and communicate OHS responsibilities and accountabilities, authority to act and reporting relationships for all managers, supervisors, employees, contractors, subcontractors and visitors e.g. job descriptions should use industry and enterprise competency standards which contain OHS competencies (see Clause 4.3.2.5);
- (b) have a process in place that monitors and communicates any changes in designated responsibilities and accountabilities should these be impacted on by changes in the OHSMS or processes;
- (c) be able to respond in a timely and effective manner to changing or unusual circumstances or events;
- (d) assign a person at the most senior management level particular responsibility for ensuring that the OHSMS is implemented and performs to expectations, in all locations and spheres of operation within the organization;
- (e) ensure operational managers are responsible and accountable for effective implementation of the OHSMS and OHS performance; and
- (f) hold accountable, within the scope of their responsibilities, employees at all levels for OHS performance in support of the overall OHSMS.

4.3.2.4 Consultation, motivation and awareness

Improving an organization's OHS performance requires the cooperation of all employees and the development of a supportive organizational culture. An organization needs to recognize that knowledge and experience throughout the workforce is a valuable resource and employees should be encouraged to participate in the development and implementation of an organization's OHSMS through consultation and involvement in the setting of objectives and targets.

People are more likely to embrace change if it is not imposed upon them. Involving employees in decisions about changes, and responding to people's concerns, helps to establish common goals between managers and employees.

The objectives and targets should be understood and supported by the organization's employees and they should be encouraged to accept the importance of their achievement both in terms of the

organization's OHS performance and the benefits this brings to the environment in which they work.

Employees need to be made aware of exposure to possible harm in their work environment including physical, chemical, biological and psychological hazards. They should have an understanding of these hazards and their controls as they relate to their work environment and be able to recognize and take action to avoid work practices or activities likely to lead to incidents.

Employees should—

- (a) be involved in the development, implementation and review of policies and procedures for hazard identification, hazard/risk assessment and control of hazards/risks;
- (b) be consulted where there are any changes that affect workplace OHS;
- (c) select those who will represent them on OHS matters; and
- (d) be informed as to who is/are their employee OHS representative(s) and specified management representative(s).

There should be documented procedures, agreed to by employees, for employee involvement and consultation in OHS issues. Information regarding the arrangements should be made available to interested parties.

Those representing the employees and employer should receive appropriate training to undertake effectively their involvement in the development, implementation and review of OHS arrangements.

4.3.2.5 Training and competency

The organization in consultation with employees should identify training needs in relation to performing work activities competently, including OHS training.

Procedures should be in place to ensure that OHS competencies are developed and maintained.

Personnel should be assessed as competent, on the basis of skills achieved through education, training or experience, to perform assigned tasks taking into account the OHS obligations, hazards and risks associated with the work activities.

Procedures should be developed for providing OHS training. These procedures should take into account—

- (a) the characteristics and composition of the workforce which impact on occupational health and safety management; and
- (b) responsibilities, hazards and risks.

The organization should ensure that all personnel (including contractors and visitors) have undertaken training appropriate to the identified needs.

Training should be carried out by persons with appropriate knowledge, skills and experience in OHS and training.

The effective implementation and maintenance of an OHSMS is dependent on the competency of an organization's people. Training is one important means of ensuring that the appropriate competencies to achieve OHS objectives are met.

Management training is an important component in ensuring that senior managers and operational managers are knowledgeable about their legislative obligations, what needs to be done to implement control of hazards/risks and their collective responsibilities. Specific training which is commensurate to the hazards or risks and specific to the available controls and the OHSMS should be provided to managers.

Employees should be competent to handle the task to which they are assigned, especially where there may be a significant hazard or significant degree of risk present in performing the task as a normal duty as well as during shut-down procedures and unplanned or emergency situations.

OHS competency standards can be developed by—

- (a) using existing industry competency standards;
- (b) examining job or position descriptions;
- (c) analysing work tasks;
- (d) analysing results of inspection and audits; and
- (e) reviewing incident reports.

A training program should be developed after completing an assessment of current capability against the required competency profile.

Procedures should be established to document and record training provided and to evaluate its effectiveness. OHS competencies should be integrated into the organization's skill base including through recruitment, selection, performance appraisal and training.

Practical help: Training and competency

Generally a health and safety training program should cover—

- (a) the OHS policy of the organization;
- (b) how health and safety are organized in the workplace;
- (c) hazard identification, hazard/risk assessment and control of hazards/risks;
- (d) specific hazards, health effects of exposure and control methods;
- (e) OHS legislation; and
- (f) emergency procedures.

Training programs may address a number of target groups including—

- (i) senior management;
- (ii) line managers/supervisors;
- (iii) employees;
- (iv) those with specific responsibilities (such as first aiders, fire wardens, health and safety representatives);
- (v) contractors and subcontractors; and
- (vi) operators who require certificates under legislation

Training records should normally include—

- (A) who has been trained;
- (B) what the training course covered;
- (C) when and for how long the training took place;
- (D) what competencies were achieved, qualifications or skills obtained, i.e. assessment of comprehension for each trainee; and
- (E) the identification and competency of the trainer.

OHS training is typically provided at certain key times in an operational cycle including—

- (1) at induction for employees;
- (2) as ongoing/refresher training;
- (3) on transfer of employees to new jobs;
- (4) on movement into managerial or supervisory positions; and
- (5) when new work processes, machinery, technology, materials and substances are being introduced.

4.3.2.6 Supplying goods and services

Where an organization intends to supply goods or provide services including maintenance to customers, it should have procedures covering hazard identification, hazard/risk assessment and control of hazards/risks both to its employees and its customers. Provision should also be made to identify how amendments to these procedures will be made and communicated to all involved. The procedures should be available regardless of the nature of the agreement with the customer, whether verbal, an order, a contract or other arrangement.

Before submitting a tender or accepting a contract or order, the organization should carry out a review to ensure that the requirements of the customer are adequately defined, that any differences between a tender, order or contract are resolved and that the organization has the capability to meet all conditions of the proposed arrangement.

The contractor should also seek information from the principal as to what hazards the contractor may be exposed while at the customer's place of work.

Practical help: Supplying goods and services

The supplier/contractor should make sure all of the customer's OHS requirements are understood and can be met (see also Clause 4.3.4.7).

'Contracts' may vary in form and may be, for example, a written order, verbal agreement, telephone order or a formally signed document. Regardless of the form there needs to be a review process.

The purpose in reviewing contracts is to ensure that the customer's requirements including OHS are understood and that the organization is capable of supplying the goods and services in the agreed time frame, as well as the OHS requirements of the customer.

It is beneficial to carry out reviews of varying levels of complexity. For a simple one-off order, a review of ability to supply safely and on time may be all that is needed. In the case of a formal contract it may be necessary to carry out a number of steps and keep records of these reviews, including the following examples:

- (a) Review invitation to bid and carry out hazard identification and hazard/risk assessment and any additional resource needs.
- (b) Compare your tender with the invitation to make sure that all parts have been addressed including OHS requirements.
- (c) Upon winning, compare your tender with the proposed contract to resolve any differences, including OHS arrangements.

There should also be a method defined to accept amendments to contracts and orders and also for amendments to any hazard identification, as well as hazard/risk assessment and control of hazards/risks.

4.3.3 Support action

4.3.3.1 Communication

Effective two-way communication together with timely reporting are essential elements of an OHSMS.

The provision of appropriate information to the organization's employees, their representatives and other interested parties serves to motivate employees and encourage public understanding and acceptance of the organization's efforts to improve its OHS performance.

An organization should have procedures for ensuring that pertinent OHS information is communicated to all the people in the

organization who need it. This requires arrangements to determine information needs and ensure that these needs are met by—

- (a) communicating the results from management systems, monitoring, audit and management reviews to those within the organization who are responsible for and have a stake in the organization's performance;
- (b) identifying and receiving relevant OHS information from outside the organization; and
- (c) ensuring that relevant information is communicated to people outside the organization who require it.

Practical help: Communication

Commonly used methods of internal communication include:

- (a) Meetings.
- (b) Team briefings.
- (c) Hard copy or electronic mail.
- (d) Videos.
- (e) Bulletins
- (f) Noticeboards.
- (g) Newsletters.
- (h) Signage.

Commonly used methods of external communication include:

- (i) Annual reports.
- (ii) Publications.
- (iii) Inserts in industry publications.
- (iv) Paid advertising.
- (v) Telephone inquiry services.
- (vi) Submissions to government on changes to legislation.

4.3.3.2 Reporting

Procedures for relevant and timely reporting of information need to be established to ensure the OHSMS is monitored and performance improved (see Clause 4.4.4).

Internal reporting procedures need to be established to cover—

- (a) health and safety performance reporting;
- (b) nonconformance (with procedures) reporting;
- (c) incident/occurrence reporting (including near hits) (see AS 1885.1); and
- (d) hazard identification reporting.

External reporting procedures need to be established to cover—

- (i) statutory reporting requirements; and
- (ii) stakeholder reporting.

Practical help: Reporting

Traditionally, reporting has focused on lost-time injuries and not the management system established to implement control of hazards/risks.

Effective reporting should cover the positive steps the organization is taking for hazard identification, hazard/risk assessment and control of hazards/risks and can include—

- (a) reports of levels of conformance with procedures;
- (b) reports on performance against targets;
- (c) reports on improvements made;
- (d) reports on investigation of the underlying reasons for incident occurrences; and
- (e) reports on health monitoring.

4.3.3.3 Documentation

Documentation is a key part of any management system and should be tailored to the needs of the organization. The organization should establish, implement and maintain information in a suitable medium, such as in print or electronic form, to —

- (a) describe the core elements of the management system and their interaction; and
- (b) provide direction to related documentation.

The range and detail of procedures that form part of the OHSMS would be dependent upon the complexity of the work, the methods used, and the skills and training needed by personnel involved in carrying out the activity.

Operational processes and procedures should be defined and appropriately documented and updated as necessary. The organization should clearly define the various types of documents which establish and specify effective operational procedures and control.

The existence of OHSMS documentation supports employee awareness of what is required to achieve the organization's OHS objectives and enables the evaluation of the system and OHS performance.

The degree and quality of the documentation will vary depending on the size and complexity of the organization. Where elements of the OHSMS are integrated with an organization's overall management system, the OHS documentation should be integrated into existing

documentation. The organization should consider organizing and maintaining a summary of the documentation to—

- (i) collate the OHS policy, objectives and targets;
- (ii) describe the means of achieving OHS objectives and targets;
- (iii) document the key roles, responsibilities and procedures;
- (iv) provide direction to related documentation and describe other elements of the organization's management system, where appropriate; and
- (v) demonstrate that the OHSMS elements appropriate for the organization are implemented.

Such a summary document can serve as a reference to the implementation and maintenance of the organization's OHSMS.

4.3.3.4 Document control

Because OHS documents communicate standards and regulate action, they should be current, comprehensive and issued by an authoritative source.

The organization should ensure that—

- (a) documents can be readily located;
- (b) documents are periodically reviewed, revised as necessary and approved for adequacy by competent and responsible personnel prior to issue;
- (c) the current versions of relevant documents are available at all locations where operations essential to the effective functioning of the OHSMS are performed;
- (d) obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against unintended use; and
- (e) archival documents and data retained for legal or knowledge preservation purposes or both are suitably identified.

Documents can be in any medium as long as they are accessible, useful and easily understood.

4.3.3.5 Records and information management

Records are a means by which the organization can demonstrate compliance with the ongoing OHSMS and should cover—

- (a) external (e.g. legal) and internal (i.e. OHS performance) requirements;
- (b) permits to work;
- (c) hazard identification and hazard/risk assessments;
- (d) OHS training activity;
- (e) inspection, calibration and maintenance activity;

- (f) monitoring data;
- (g) details of incidents (cf. Clause 4.3.3.2), complaints and follow-up action;
- (h) product identification, including composition;
- (i) supplier and contractor information; and
- (j) OHS audits and reviews.

A complex range of information can result. The effective management of these records is essential to the successful implementation of the OHSMS. The key features of good OHS information management include means of identification, collection, indexing, filing, storage, maintenance, retrieval, retention disposition and access of pertinent OHSMS documentation and records.

4.3.4 Hazard identification, hazard/risk assessment and control of hazards/risks

4.3.4.1 General

All hazards should be identified, hazard/risk assessment conducted then control of hazards/risks should take place. These steps are repeated as part of an ongoing process, especially when there are changes in the workplace, e.g. through the use of new substances or new machinery, or the effectiveness of the control method is being evaluated, (see Figure 2), or there is new knowledge on hazards or changes in legislation.

4.3.4.2 Hazard identification

Hazard identification is the process of finding all items, activities and situations, products and services, that could give rise to injury or illness.

This would generally involve consideration of—

- (a) the type of injury or illness that is possible;
- (b) the situations or events, or combination of circumstances, that could give rise to injury or illness; and
- (c) the way work is organized and managed.

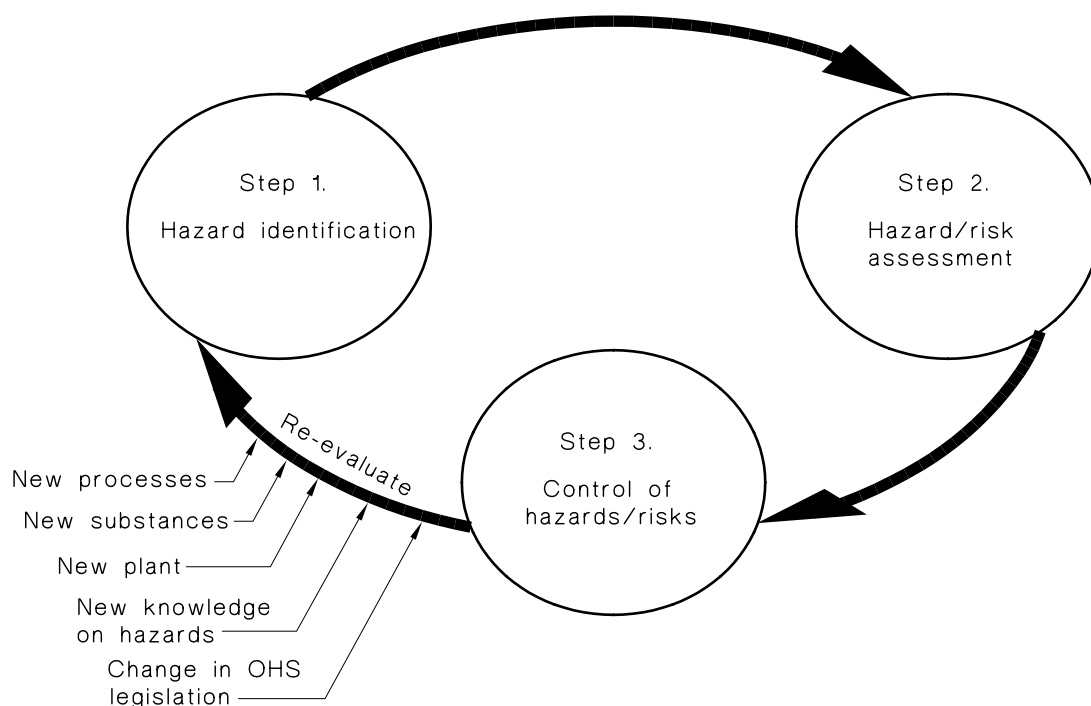


Figure 2 Hazard identification, hazard/risk assessment and control of hazards/risks

Practical help: Hazard identification

Tools used to assist in the identification of hazards include:

(a) *Consultation*

People with experience in the job can indicate aspects that they believe are hazardous and incidents in the past that signal hazardous situations.

(b) *Inspection*

A physical inspection of the work environment.

(c) *Records*

Records and investigation of past incidents involving injury and illness highlight sources of potential harm.

(d) *Information/specialist advice*

The identification of some hazards will require specialist advice, research and information.

(e) *Task analysis*

By breaking a task down into its individual elements, hazards associated with the task can be identified.

(f) *Formal hazard analysis methods* (see AS/NZS 3931).

(g) *Informal hazard analysis*, asking 'what if . . . ?'

4.3.4.3 Hazard/risk assessment

In Australia, risk assessment is the process used to determine the level of risk of injury or illness associated with each identified hazard, for the purpose of control. The priority for control increases as the established level of risk increases.

Hazard assessment is a process used in New Zealand to determine whether or not an identified hazard is significant. The processes of 'hazard identification', followed by 'hazard assessment' are described in NZ legislation.

Practical help: Hazard/risk assessment

(a) Risk assessment (Australia only)

One of the ways risk assessment is carried out is given below.

In order for risk assessment to be carried out, the level of risk is first determined. Some legislation requires certain control action to be adopted, regardless of whether the risk has been determined.

Establishing the level of a risk requires clear specification of the actual components of the risk being considered, i.e. the specific scenario of sequence of events including the nature of consequences to be considered, the exposure to the chosen hazard, and finally the probability or likelihood of that scenario taking place. In assessing and determining both the exposure and the probability, the existing controls are considered.

Any scenario involving a particular hazard can lead to different consequences depending on the sequence of exposure events. Hence any risk level needs to be assessed separately for each chosen sequence of events.

To combine the three components of any risk in assessing its level, carry out the following:

- (i) Choose a specific consequence or outcome severity for one possible sequence of events involving the hazard under consideration. Other possible sequences with different possible consequences need to be assessed separately. The number of persons harmed and the nature of their injuries/illness affects the estimation of the consequence or outcome severity.
- (ii) Determine the exposure for the chosen sequence, i.e. how often (frequency); how long (duration) and to what extent the affected persons are exposed to the particular hazard (for a toxic hazard this would include any time-weighted average or ceiling exposure).

(iii) Estimate the probability, likelihood or chance that the chosen scenario will lead to the specific consequences being considered. Every scenario considered for any particular hazard has its own specific risk level. The integrity and effectiveness of any existing risk control measures will need to be included in estimating probability.

RISK = LEVEL	CONSEQUENCE × The outcome severity (injury/illness) of one scenario	EXPOSURE × Frequency and duration of exposure of persons to the chosen hazard	PROBABILITY Likelihood or chance that the chosen sequence and consequence will occur
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The risk level should then be used to prioritize risk control measures—see, for example, AS/NZS 4360.

(b) *Hazard assessment (New Zealand only)*

Hazard assessment is the process of determining whether an identified hazard is significant. Significant hazards, as defined in New Zealand OHS legislation, must be controlled. The highest priority should be given to the most significant hazards.

4.3.4.4 **Control of hazards/risks—General**

Unless a particular hazard is removed, the risk associated with such a hazard can never be completely eliminated.

Organizations should plan the management and control of those activities, products or services that can or may pose a significant risk to the health and safety of employees. This can be achieved by documenting and implementing policies and standards for workplace plant and materials design, as well as procedures and work instructions to manage and control such activities, products and services.

The approach most commonly used, and often adopted in legislation for control of hazards/risks, employs a preferred order of control methods (commonly referred to as a hierarchy) from preferred (elimination), to the least desirable as follows:

- (a) Elimination
- (b) Substitution.
- (c) Engineering controls.
- (d) Administrative (procedural) controls.
- (e) Personal protective equipment.

NOTE

NZ legislation, HSE Act 1992 specifies a required order of control:

- (a) Elimination
- (b) Isolation
- (c) Minimization and employees protected.

In order to ensure the effectiveness of these controls, organizations should implement a system of monitoring and checking appropriate to their needs. Typical components of such a system should include the following activities:

(i) *Self checking*

The operator should act at nominated points in the work process to ensure that safety equipment is working properly before work is commenced, and that work surfaces are clear of obstructions.

(ii) *Inspection and testing*

The operator's supervisor or team leader should ensure that the operator is complying with the requirements of the organization's OHS policy, work procedures and instructions as they relate to their work and that their workplace is as safe and healthy a place as defined in the organization's OHS policy in which to perform the specified operations. Compliance should be verified through the conduct of regular documented inspections.

(iii) *Independent inspections*

This formally documented independent inspection process is intended to ensure that the organization's policies, work procedures and instructions are being followed, that adequate resources are being provided to ensure that all areas of the working environment conform to OHS standards and that a process exists to identify new hazards to employees and institute control measures prior to start of work. This element of the process is documented elsewhere (see Clause 4.4.2).

Practical help: Control of hazards/risks

Elimination is a permanent solution and should be attempted in the first instance. The hazard is eliminated altogether. For example, the elimination of a hazardous process or substance.

Substitution involves replacing the hazard by one that presents a lower risk. This could involve the substitution of a toxic substance with a less toxic substance.

Engineering controls involve some structural change to the work environment or work process to place a barrier to, or interrupt the transmission path between, the worker and the hazard. This may include machine guards, isolation or enclosure of hazards, the use of extraction ventilation and manual handling devices.

Administrative (procedural) controls reduce or eliminate exposure to a hazard by adherence to procedures or instructions. Documentation should emphasize all the steps to be taken and the controls to be used in carrying out a task safely. Administrative controls are dependent on appropriate human behaviour for success. Examples include safe working procedures and permits to work.

Personal protective equipment is worn by people as a barrier between themselves and the hazard. The success of this control is dependent on the protective equipment being chosen correctly, as well as fitted correctly and worn at all times when required.

Attempts should be made to select control measures from the top end of the hierarchy where possible. These controls may be most easily accommodated at the planning/design stages of a project. However, it may be necessary to use a combination of measures to achieve the desired level of control.

4.3.4.5 Design, fabrication, installation and commissioning

Health and safety should be considered at the initial planning/design phase to build in the control of hazards/risks at this point. The intended use, as well as maintenance, of facilities, equipment and systems, should be considered. If a process, product or workplace is designed and built with health and safety in mind the number of reactive add-on procedures required to manage hazards will be minimized.

Each stage of the design cycle (planning, development, review, verification, validation and change) should incorporate hazard identification, hazard/risk assessment and control of hazards/risks procedures. Appropriately competent people should be allocated clear responsibilities to ensure health and safety requirements are satisfied.

It may not be feasible to anticipate or identify all possible hazards at the design stage. A process, or workplace will usually need modification at some time after commissioning, where a periodic hazard/risk assessment has identified such a need or because of technological or other changes. The same design principles should be used for such modifications.

Where the newly evaluated hazard cannot be eliminated or substituted for a less significant one or one that presents a lower risk, engineering controls need to be adopted (see also Clause 4.3.4.4). When the product, process or workplace is redesigned this experience should be considered in the design process.

Practical help: Design, fabrication, installation and commissioning

Hazards should be identified at the design stage in consultation with, for example, end-users, maintenance personnel, as well as engineers, architects, doctors or health and safety professionals.

Control of hazards/risks should be carried out by:

- (a) Appropriate design, siting and selection of premises including—
 - (i) proposed use, foreseeable uses and future maintenance;
 - (ii) construction in a manner incorporating best health and safety practices; and
 - (iii) checking compliance to contract specifications, legislation and standards.
- (b) Appropriate design and selection of plant including—
 - (i) the compilation of technical standards as well as human factors relating to installation, use, maintenance, decommissioning and dismantling and disposal (including ongoing waste disposal); and
 - (ii) any relevant OHS experience gained by users of plant in similar circumstances.
- (c) Appropriate design of work systems including documented work procedures and appropriate people management practices (see Clause 4.3.4.6).

4.3.4.6 Administrative (procedural) control

Documented procedures and work instructions should be established where the absence of such procedures could adversely affect health and safety.

They should—

- (a) be written for work to be done in the simplest and most efficient manner having regard to health and safety of the operator and others at each step; and
- (b) be integrated with any existing quality or environmental management system.

The design and review of such procedures should be developed by competent people together with involvement from those required to perform the task(s).

Employees should be trained why and when such procedures are required and to be competent in their use.

Procedures should be reviewed regularly, as well as when changes to equipment, processes or raw material have occurred.

NOTE:

Such documented procedures and work instructions are commonly known as safe systems of work or standard operating procedures.

A suitable maintenance system (including preventive, not just remedial maintenance) should be in place for plant and equipment to ensure continuing operation with minimum risk. Details of maintenance jobs should be identified and effective planning carried out to identify hazards and control of hazards/risks during maintenance work.

Practical help: Administrative (procedural) control

Operational control measures that could be considered include:

- (a) High risk permits—for tasks involving significant hazards or a high risk, e.g. isolation/lockout, confined space entry, hot work. These are signed and dated.
- (b) Restricted work areas, e.g. for welding or use of explosive-powered tools.
- (c) Handling, storage, transport of hazardous and dangerous goods.
- (d) Use of warning signs, clear labelling.
- (e) Rotation of jobs, e.g. to reduce exposure to a specific hazard such as noise.

4.3.4.7 Purchasing goods and services

A system for the purchasing of goods and services, including maintenance, should ensure that purchased goods and services, i.e. contractors and subcontractors conform to the organization's OHS requirements (refer Clause 4.1.4).

When introducing goods and services into the workplace, the organization should use the identification, assessment and control approach (refer Clause 4.3.4.1) and involve all those directly affected, for example senior management, employees, including those responsible for purchasing, employee representatives, clients, contractors and suppliers (designers, manufacturers, installers).

This includes informing contractors of hazards or risks associated with the organization's workplace. Notwithstanding the contractor's and the supplier's obligations contained in contract documentation, the organization remains accountable for safe work practice, procedures and equipment on the site (see also Clause 4.3.2.6).

Practical help: Purchasing goods and services**(a) Purchasing documentation**

Purchasing documents may vary in form and may be, for example, an order form, a letter, a verbal agreement, a telephone call or a formally signed contract. Whatever the form, some review process is needed.

The purpose in reviewing orders is for the organization to be satisfied that the supplier or contractor from whom goods or services are being obtained—

- (i) understands what is required;
- (ii) is capable of supplying what is agreed; and
- (iii) for contractors coming on site, understands OHS requirements of the organization.

It may be desirable to have records available which list acceptable suppliers of goods and acceptable contractors. It may also be desirable to regularly evaluate the performance of those on such a list.

The range and detail of purchasing documentation would depend on the significance of hazard or the level of risk to be associated with the tendered service or the proposed use of purchased goods.

(b) *Contractors*

The organization needs to ensure that procedures have been developed for the employment of contractors who undertake work at the organization's premises or assets.

The selection of contractors should be on the basis of their ability to complete the contracted work in a safe competent manner and not solely on price.

To assist in the selection of contractors the following check list may be of assistance:

- (i) Adequacy of contractor's OHS policy.
- (ii) Competency of contractor's personnel.
- (iii) Registrations and licences where necessary.
- (iv) Compliance with all organization's OHS policies and procedures including site inductions.
- (v) Contractor's work plans and procedures which ensure that work methods, materials and equipment conform to OHS regulations, standards and codes of practice.
- (vi) Adequacy of resources both human and financial to meet the above requirements.
- (vii) The adequacy of supervisory arrangements.

The above requirements should form part of the formal contract document.

It is therefore necessary for the organization's procedures to provide for adequate checks of the operations to ensure contract requirements are adhered to. Examples include:

- (A) Undertake workplace audits.
- (B) Audit registration, licences and certificates.
- (C) Maintain control of site inductions, procedures and records.
- (D) Verify supervisory control as adequate.

4.3.5 Contingency preparedness and response

4.3.5.1 Emergency or disaster plans

While the OHSMS focuses on prevention of illness, injury and damage to plant or the environment, it needs to be recognized that some unplanned incidents could happen. With a well-planned and managed OHSMS such events should be rare. It is therefore, necessary for the organization to plan for such contingencies in advance and to periodically test these plans to allow an adequate response to occur during the actual contingency.

These could involve significant events such as fire, explosion or natural disasters that threaten the viability of the organization. Emergency plans and procedures need to be developed and periodically tested. They should be reviewed by the appropriate service provider, e.g. fire brigade, police and the like. For large installations, the emergency plans should coordinate with municipal or State disaster planning.

Practical help: Emergency or disaster plans

Emergency plans can include—

- (a) installation or availability of suitable warning and alarm systems, tested at regular intervals;
- (b) emergency organization and responsibilities;
- (c) a list of key personnel;
- (d) details of emergency services (e.g. fire brigade, spill clean-up services)
- (e) an internal and external communication plan;
- (f) training plans and testing for effectiveness;
- (g) emergency rescue equipment available and maintained in good working order; and
- (h) summary of information useful for emergency services.

4.3.5.2 Incidents involving employees

These could be anything from minor to fatal injuries affecting employees, contractors and others on site. The organization should have appropriate procedures to mitigate the effects of such incidents on those directly suffering injury. These procedures can include:

- (a) Establishment of appropriate first aid facilities that are matched to the site hazards and availability of further assistance.

Sites remote from medical assistance should have first aid appropriate to stabilize any injury until transported to such medical assistance.

- (b) Processes to rehabilitate injured employees by providing for appropriate rehabilitation as soon as practicable after the injury occurs, so that recovery from the injury is expedited.

Rehabilitation may be a requirement of State workers' compensation legislation.

4.3.5.3 Critical incident recovery plan (CIRP)

Organizations should institute a CIRP as part of their emergency/disaster plans to aid in employee and plant recovery as soon as possible after the cessation of the event. The CIRP assists employees who are not injured but who have for example, witnessed an incident, cope with the trauma as well as minimizing the time required for the organization to return to normal operations. Situations where a CIRP is useful include the aftermath of a workplace fatality, armed hold-up or external physical threat. Employees who are not physically affected may still suffer psychological effects that need to be resolved through defusing, debriefing and counselling.

Only suitably qualified counsellors should be used to assist persons affected by a traumatic event. These may be contracted from specialist organizations or retained as part of the emergency plan.

Practical help: Critical incident recovery plan (CIRP)

The CIRP should cover:

- (a) Responsibilities, including coordination and initiation.
- (b) Defusing, where those involved in the trauma can discuss the event immediately afterwards in a confidential atmosphere.
- (c) Debriefing, designed to assist employees and others use their own abilities to overcome emotional effects of serious incidents.
- (d) Counselling, where further therapy may be required on an ongoing basis. Assistance may also have to be provided to the families of affected personnel.
- (e) Legal and insurance requirements, e.g. interference without loss adjuster approval can invalidate the insurance policy.

4.4 Measurement and evaluation

Principle 4 Measurement and evaluation

An organization should measure, monitor and evaluate its OHS performance, and take preventive and corrective action.

4.4.1 General

Measuring, monitoring and evaluating are key activities which ensure that the organization is performing in accordance with its OHS policy, objectives and targets as well as initial and ongoing

planning. In some instances inspection and testing are required by legislation. The results should be analysed and used to determine areas of success and to identify activities requiring corrective action and improvement.

There should be a system in place to measure, monitor and evaluate actual performance, using the performance indicators, as derived in Clause 4.2.5.

The results should be analysed and used to determine areas of success and to identify activities requiring corrective action and improvement.

Appropriate processes should be in place to ensure the reliability of data, such as the calibration of instruments, test equipment, and software and hardware sampling (see Clause 4.4.2).

4.4.2 Inspection, testing and monitoring

The organization should establish, implement and maintain documented procedures for planning and conducting ongoing inspection, testing and monitoring related to OHS goals and targets set earlier (see Clause 4.2.4). The frequency of such inspection and testing should be appropriate to each item inspected, tested or monitored. In general—

- (a) personnel involved in inspection, testing and monitoring should have suitable skills and experience;
- (b) records of OHS ongoing inspection, testing and monitoring (with details of both positive and negative findings) should be maintained and made available to relevant management, employees and contractors (see Clause 4.3.3.5); and
- (c) suitable testing equipment and procedures should be used to ensure OHS standards are maintained.

Practical help: Inspection, testing and monitoring

(a) *Inspection*

Examples of independent inspection processes include:

- (i) Inspection of a potentially hazardous process to ensure that controls have been effective.
- (ii) Inspection of plant such as pressure vessels to conform with specified, e.g. regulatory requirements.
- (iii) Inspection of a work area to ensure that specific site safety rules have been followed.
- (iv) Inspection of a work site to ensure that controls are effective and to reinforce management commitment to the OHSMS.

These inspections may be carried out by competent people such as safety representatives, technicians or managers.

(b) *Testing and monitoring*

Monitoring and testing for specific hazards may take the following forms:

- (i) Environmental, e.g. flammable gases.
- (ii) Personal, e.g. noise dosimetry, personal respirable dust sampling.
- (iii) Biological, e.g. heavy metals in blood or urine.

Procedures should be in place for action when results do not conform with exposure standards or limits or show abnormal trends.

4.4.3 Audits of the OHSMS

Periodic audits of the OHSMS are necessary to determine whether the system (including the organization's policy, objectives and targets, management program, operational controls and audit program), has been properly implemented and maintained and whether the organization has met the performance objectives set within its OHS policy.

Audits should be suitable and effective, performed objectively by competent personnel independent of the activities being audited, using a recognized methodology to ensure consistency of the audit process and its outcome. The audit frequency should be determined based on the review of past results and the nature of the hazards evident in the work area, practices or activities.

The results of the audit should be used by senior management in the management review process (see Clause 4.5.2).

In addition to their internal audit program some organizations also choose to arrange external audits of their OHSMS. External audits may be useful in providing a more independent assessment of performance and may employ expertise not available in-house. External OHS audits are conducted by a range of organizations from both the private and public sectors. AS/NZS 4801 is a useful audit tool for such external audits of the organization.

4.4.4 Corrective and preventive action

4.4.4.1 General

The findings, conclusions, and recommendations reached as a result of inspection and testing, audits and other reviews of the OHSMS should be documented, and the necessary corrective and preventive actions identified.

Corrective action is action taken after the event to correct any problem and ensure that a repetition will not occur.

Preventive action is pro-active and involves taking steps before problems occur. Management should ensure that these corrective and preventive actions have been implemented and that there is systematic follow-up to ensure their effectiveness. In addition—

- (a) timely corrective action should be taken where inspection, testing and monitoring reveal a nonconformity with OHS requirements;
- (b) sufficient investigation should be undertaken to identify both the immediate and the underlying causes of any shortcomings; and
- (c) findings should be analysed and reviewed to allow corrective and preventive action to be planned and implemented (see also Clause 4.3.3.2).

4.4.4.2 Incident Investigation

The investigation of incidents provides an opportunity to examine many aspects of the operation of an organization's OHSMS, e.g. training, hazard identification, hazard/risk assessment, control of hazards/risks and emergency preparedness.

Incident investigations should be commissioned and the incident investigation team assembled by management as soon as possible after an incident. The composition of an incident investigation team depends on the actual or potential incident outcomes.

The key aim of incident investigations is to identify control measures that will prevent a recurrence of the same incident. The focus should be on identifying system deficiencies rather than apportioning blame.

To prevent a recurrence of an incident, change is necessary. Changes may involve costs that may influence business decisions on how work is organized and performed. Management should be involved in the review and implementation of the recommendations made by the incident investigation team. Management have a responsibility to authorize, develop and resource any required actions.

Practical help: Incident investigation

An incident investigation team typically includes—

- (a) the supervisor or manager;
- (b) the individual(s) involved in the incident; and
- (c) employee representatives.

For the investigation of high risk or complex incidents consideration should be given to include—

- (i) a senior member of management;
- (ii) a person with technical knowledge of the work from another work group or company; and
- (iii) an OHS professional.

The main stages of an incident investigation are:

- (A) Gather objective information and establish the facts. Data collected typically relates to machine, environment and human factors (i.e. regarding hazard identification, hazard/risk assessment and controls, sequence of events, operating procedures, training, induction, supervision, emergency arrangements).
- (B) Isolate the contributory factors (i.e. incidents may be multi-causal and there may be many interactions between causal factors).
- (C) Determine corrective and preventive actions (the incident investigation team should propose recommended actions to eliminate or modify the contributory factors that either led to the incident or affected the consequence of the incident outcomes).
- (D) Prepare a report (i.e. the report should contain a proposed action plan for management consideration and implementation).

4.5 Review and improvement

Principle 5 Review and improvement

An organization should regularly review and continually improve its OHSMS, with the objective of improving its overall OHS performance.

4.5.1 General

A continual improvement process should be applied to an OHSMS to achieve overall improvement in OHS performance.

4.5.2 Review of the OHSMS

The organization's executive management should, at appropriate intervals, conduct a review of the OHSMS to ensure its continuing suitability and effectiveness in satisfying the organization's OHS policy and objectives.

The review of the OHSMS should be broad enough in scope to address the OHS implications of all activities, products or services of the organization, including their impact on the performance of the organization.

Review of the OHSMS should include—

- (a) an evaluation of the suitability of the OHS policy;
- (b) review of OHS objectives, targets and OHS performance indicators;
- (c) findings of the OHSMS audits; and

- (d) an evaluation of the effectiveness of the OHSMS and the need for changes in the light of—
 - (i) changing legislation;
 - (ii) changing expectations and requirements of interested parties;
 - (iii) changes in the products or activities of the organization;
 - (iv) changes to the structure of the organization;
 - (v) advances in science and technology including epidemiology;
 - (vi) lessons learned from OHS incidents;
 - (vii) market preferences;
 - (viii) reporting and communication; and
 - (ix) feedback (particularly from employees).

Practical help: Review of the OHSMS

Management review is a cornerstone of the management system, providing an opportunity for senior management to regularly review the operation of the system and its continuing suitability in the face of change and to make adjustments to build upon and improve its effectiveness.

Some organizations prefer to incorporate the review into a regular senior management meeting to build on the principle that OHS management should be integrated into line management activities.

Some organizations, recognizing the importance of employee involvement in the process, choose to use the mechanism of the central workplace committee where senior management and employee representative members conduct the periodic review.

Other organizations may prefer to hold separate management review meetings, with suitable participants, where no other business will distract attention from the OHS review process.

Even where employee representatives are directly involved in the review, it is important to ensure that feedback on OHS performance is gathered from employees and other relevant stakeholders.

Equally employees and other stakeholders should be kept informed of changes and improvements flowing from the review process.

4.5.3 Continual improvement

The concept of continual improvement is embodied in the OHSMS. It is achieved by continually evaluating the performance of the OHSMS against its OHS policies, objectives and targets for the purpose of identifying opportunities for improvement (see Figure 1 in the Foreword).

The continual improvement process should—

- (a) identify areas of opportunity for improvement of the OHSMS which lead to improved OHS performance;
- (b) determine the root cause or causes of nonconformance or deficiencies;
- (c) develop and implement plans of corrective and preventive action to address the root causes;
- (d) verify the effectiveness of the corrective and preventive actions;
- (e) document any changes in procedures resulting from process improvement; and
- (f) make comparisons with objectives and targets.

APPENDIX

A Comparison between this Standard and AS/NZS ISO 14004:1996

(Informative)

AS/NZS 4804		AS/NZS ISO 14004	
4.1	Commitment and policy		
4.1.1	General	4.1.1	General
4.1.2	Leadership and commitment	4.1.2	Top management commitment
4.1.3	Initial OHS review	4.1.3	Initial environmental review
4.1.4	OHS policy	4.1.4	Environmental policy
4.2	Planning		
4.2.1	General	4.2.1	General
4.2.2	Planning identification of hazards, hazard/risk assessment and control of hazards/risks	4.2.2	Identification of environmental aspects and evaluation of associated environmental impacts
4.2.3	Legal and other requirements	4.2.3	Legal and other requirements
4.2.4	Objectives and targets	4.2.5	Environmental objectives and targets
4.2.5	Performance indicators		
4.2.6	OHS management plans	4.2.6	Environmental management programme(s)
4.3	Implementation		
4.3.1	General	4.3.1	General
4.3.2.1	Resources — Human, physical and financial	4.3.2.1	Resources — Human, physical and financial
4.3.2.2	Integration	4.3.2.2	EMS alignment and integration
4.3.2.3	Accountability and responsibility	4.3.2.3	Accountability and responsibility
4.3.2.4	Consultation, motivation and awareness	4.3.2.4	Environmental awareness and motivation
4.3.2.5	Training and competency	4.3.2.5	Knowledge, skills and training
4.3.2.6	Supplying goods and services	4.3.3.3	Operational control

(continued)

AS/NZS 4804		AS/NZS ISO 14004	
4.3.3.1	Communication	4.3.3.1	Communication and reporting
4.3.3.2	Reporting		
4.3.3.3	Documentation	4.3.3.2	EMS documentation
4.3.3.4	Document control		
4.3.3.5	Records and information management	4.4.4	EMS Records and information management
4.3.4	Hazard identification, hazard/risk assessment and control of hazards/risks	4.2.2	Identification of environmental aspects and evaluation of associated environmental impacts
4.3.4.1	General		
4.3.4.2	Hazard identification		
4.3.4.3	Hazard/risk assessment		
4.3.4.4	Control of hazards/risks	4.3.3.3	Operational control
4.3.4.5	Design, fabrication, installation and commissioning		
4.3.4.6	Administrative (procedural) control		
4.3.4.7	Purchasing goods and services		
4.3.5	Emergency preparedness and response	4.3.3.4	Emergency preparedness and response
4.4 Measurement and evaluation			
4.4.1	General	4.4.1	General
4.4.2	Inspection, testing and monitoring	4.4.2	Measuring and monitoring (ongoing performance)
4.4.3	Audits and the OHSMS	4.4.5	Audits and the environmental management system
4.4.4	Corrective and preventive action	4.4.3	Corrective and preventive action
4.5 Review and improvement			
4.5.1	General	4.5.1	General
4.5.2	Review of the OHSMS	4.5.2	Review of the EMS
4.5.3	Continual improvement	4.5.3	Continual improvement

APPENDIX

B Rehabilitation

(Informative)

NOTE:

This Appendix is an adapted extract from a National Occupational Health and Safety Commission (NOHSC) publication, *Guidance Note for Best Practice Rehabilitation Management of Occupational Injuries and Disease*, NOHSC:3021 (1995).

B1 Philosophy

In its broadest sense, rehabilitation can be seen as a strategy to maximize an individual's potential for restoration to his or her pre-injury physical, social, psychological, educational and vocational status—emphasizing a multidisciplinary approach.

However, within a workers' compensation system, rehabilitation is more focused. Emphasis is placed on interventions aimed at maintaining injured employees within the workplace or returning them to appropriate employment in a timely and cost-efficient manner.

Early intervention and a workplace focus for rehabilitation are recognized as effective in reducing the economic and human costs associated with work-related injury and disease. Research and practical experience have demonstrated that employers benefit from developing systems for early identification, treatment and management of work-related injury or disease, thereby reducing the prospects of an injury or disease becoming a long-term worker's compensation claim. This approach will typically involve some form of early reporting of injury and a coordinated response from management involving all relevant parties. The responsibility for this role is usually located with the workplace rehabilitation coordinator or other OHS personnel within the organization.

Close communication and cooperation between all parties is necessary if successful outcomes are to be achieved.

B2 Aims

Within a workers' compensation system, the focus is on—

- (a) achievement of optimal physical and mental recovery;
- (b) return to suitable work at the earliest possible time; and
- (c) reduction of the human and economic cost of disability to employees, employers and the broader community.

B3 Principles

Irrespective of the compensation and rehabilitation system, there are essential principles of rehabilitation which can be promoted and maintained by all concerned. These principles are as follows:

- (a) Maintenance at work, or early and appropriate return to work, is in the best interests of all employees who have suffered a work-related injury or disease and should be the prime goal.
- (b) Commitment by all parties to the rehabilitation process is essential for successful outcomes.
- (c) Recognition that the workplace is usually the most effective place for rehabilitation to occur.
- (d) Rehabilitation should occur at the earliest possible time consistent with medical judgement.
- (e) Rehabilitation intervention should ensure that—
 - (i) the dignity of employees is retained; and
 - (ii) employees participate actively in the process.
- (f) Consultation between the employer and employee (and their representatives—where appropriate) should occur at all stages of the rehabilitation process.
- (g) Employers and employees should be informed of their legislative entitlements and requirements under the relevant workers' compensation system.
- (h) Information should be treated confidentially, and with sensitivity, being used only for the purpose for which it was supplied.
- (i) All relevant rehabilitation expenses are to be met by the agent responsible under appropriate legislation.
- (j) Return-to-work programs should aim to return the employee to work in either:
 - (i) same job/same employer;
 - (ii) similar job/same employer; or
 - (iii) new job/same employer.

These are the first options to be considered when planning and implementing return to work programs. If these are inappropriate, or no position is available with the original employer, then the workers' compensation authorities may seek to place the individual with a new employer.

- (i) Work assigned through the rehabilitation process should be meaningful to the employee.
- (ii) Graduated return to full time duties, permanent part-time work or reduced hours relative to pre-injury hours should be considered when planning and implementing return-to-work activities.

- (iii) No injured employee should suffer financial disadvantage by participating in a return-to-work program.
- (iv) Rehabilitation is most effective when linked to a workplace-based OHS program.

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