



ISO 45001: Safety Management Systems

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Why have a Management System?

Image and Employee Relations

- Improves image and credibility among stakeholders, regulators, customers, prospective clients and the public
- Ensures health and well-being of employees, sub-contractors and the public
- Increases employee awareness through the participation process

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Why have a Management System?

Financial

- Potential to reduce accident and incident rates by reducing or eliminating workplace hazards
- Minimize impacts of employee turnover and changes in process
- Minimization of liability by shifting attention to proactive practices than reactive controls.

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Why have a Management System?

Risk Reduction

- A robust safety program includes best practices in relation to risk management
- Ensures legislative awareness and compliance
- Improves the incident investigation process, by providing structure

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Standard Overview

- ISO 45001
 - Occupational health and safety management systems
 - First International Organization for Standardization for Safety
 - Incorporated components of existing standards
 - Issued March 2018
 - 3 year time period to transition from OHSAS 18001 to ISO 45001, deadline March 2021

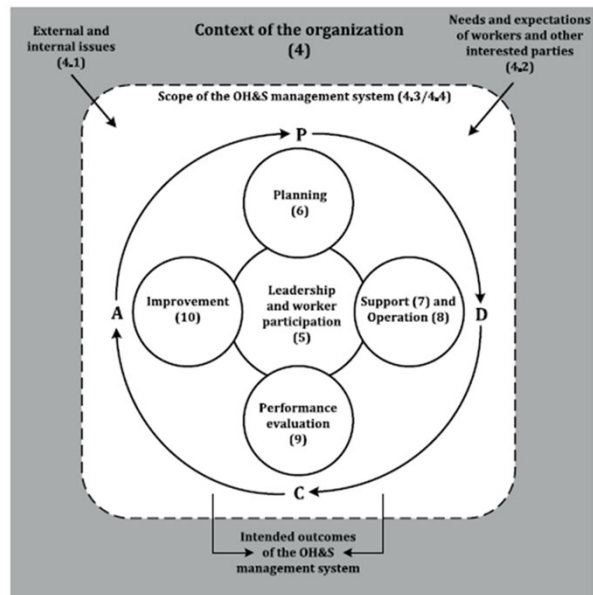
- There are many similarities between ISO Standards 9001:2015 (Quality) and 14001:2015 (Environmental) Definitions
 - Clauses
 - Allows for easy collaboration and avoiding duplication of work



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Plan, Do,
Check, Act



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Management system terms

SMS Safety Management System

Shall is a requirement (over 80 times in the standard)

Should is a recommendation

May is a permission

Can indicates a possibility

Documented Information: information required to be controlled and maintained by an organization (listed 18 times)

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- 1 – Scope
- 2 – Normative references
- 3 – Terms and definitions



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- 1 Scope
- 2 Normative references (N/A)
- 3 Terms and definitions

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4 Context of the organization

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4.1 Understanding the organization and its context

- Determine what **internal** and **external** issues can affect the SMS
 - Internal: working conditions, culture of the organization, introduction of new products or technologies, organizational structure, roles and accountabilities
 - External: cultural, social, political, legal, financial, competitors, new technologies and new regulations

Note: See additional examples in Annex A of ISO 45001

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

Needs and expectations of workers and other interested parties

- Workers: include employees and contractors
- Interested parties: Legal and regulatory authorities, suppliers, corporate, neighbors, families of workers

These needs and expectations are, or could become, legal requirements and other requirements

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4.3 Determining the scope of the SMS

- The scope of the SMS **shall**:

- Consider external and internal issues
- Take into account the requirements as identified through the needs and expectations
- Take into account the planned or performed work related activities

It **shall** include activities, products and services within the organizations control or influence that can affect safety performance

Must be maintained as **documented information**

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5 Leadership and worker participation

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5.1 Leadership and commitment

- Specific roles for **Top management** including:
 - Taking overall **responsibility** and **accountability** for the prevention of work-related injury and ill health, as well as the provision of safe and healthy workplaces and activities
 - Ensuring **resources** needed to improve SMS are available
 - **Developing, leading** and **promoting** a culture in the organization that supports the intended outcomes of SMS
 - **Supporting** the establishment and functioning of health and safety committees

Top Management: person or group of people who directs and controls the organization at the highest level

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5.2 OH&S Policy

- a) includes a **commitment** to provide safe and healthy working conditions for the prevention of work-related injury and ill health and is appropriate to the purpose, size and context of the organization and to the specific nature of its OH&S **risks** and OH&S **opportunities**;
- b) provides a **framework** for setting the OH&S **objectives**;
- c) includes a **commitment** to fulfil **legal requirements** and **other requirements**;
- d) includes a **commitment** to **eliminate hazards** and **reduce OH&S risks**;
- e) includes a **commitment** to continual improvement of the OH&S management system;
- f) includes a **commitment** to consultation and participation of workers, and, where they exist, workers' representatives.

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5.2 OH&S Policy

The OH&S policy **shall**:

- be available as **documented information**;
- be communicated within the organization;
- be available to **interested parties**, as appropriate;
- be relevant and appropriate.

Note: The policy can be made available “upon request” just ensure that this is documented in a procedure.

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5.3 Organizational roles, responsibilities and authorities

- **Top Management shall** ensure responsibilities and authorities for roles are assigned and communicated, including those related to the SMS
- These may be documented as part of job descriptions or incorporated into a procedure

Note: While responsibility and authority can be assigned, ultimately top management is **accountable**

Note 2: There is no longer a reference to OHSAS 18001 term Top Management Appointee

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5.4 Consultation and participation of workers

- The organization shall establish, implement and maintain a process(es) for consultation and participation of workers at all applicable levels and functions, in the development, planning, implementation, performance evaluation and actions for improvement of the SMS.

Worker: person performing work on work-related activities that are *under the control* of the organization

Consultation: seeking views before making a decision

Participation: involvement in decision making

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6 Planning

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6.1 Actions to address risks and opportunities

- The organization, in its planning process(es), **shall** determine and assess the risks and opportunities that are relevant to the intended outcomes of the SMS.
- In the case of planned changes, permanent or temporary, this assessment shall be undertaken before the change is implemented.
- Information related to risk and opportunities must be maintained as **documented information**.

Risk: effect, either positive or negative, of uncertainty

Opportunity: circumstances or set of circumstances that can lead to improvement of OH&S performance

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6.1.2 Hazard identification and assessment of risk and opportunities

6.1.2.1 Hazard identification

- Process must be **ongoing** and **proactive**. The process **shall** take into account (not a complete list):
- Routine and non-routine activities
- Past relevant incidents, internal and external to the organization
- Potential emergency situations
- Changes in knowledge of, and information about, hazards

6.1.2.2 Assessment of OH&S risks and other risks to the OH&S Management System

6.1.2.3 Assessment of OH&S opportunities and other opportunities for the OH&S Management System

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6.1.3 Determination of legal and other requirements

Examples include:

- Federal, State and Local Regulations
- Customer Requirements
- Company/Corporate Programs
- Voluntary Programs

Requirements need to be identified and accessible

Documentation information is required

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6.1.4 Planning action

- The organization shall plan actions related to
- Risk and opportunities
- Legal and other requirements
- Emergency Situations

Planning **shall** take into account hierarchy of controls and **consider** best practices, technological options and financial, operational and business requirements

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OH&S objectives and planning to achieve them

Shall be established at relevant functions and levels and **shall** be communicated.

Objectives **shall** include the following:

- What will be done
- What resources will be required
- Who will be responsible
- When it will be completed
- How the results will be evaluated
- How they are integrated into the business process

Objectives and plans shall be maintained as **documented information**

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7 Support

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7.1 Resources

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

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7.2 Competence

The organization shall:

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

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7.3 Awareness

Workers shall be made aware of:

- a) the SMS policy and objectives;
- b) their contribution to the effectiveness of the SMS, including the benefits of improved performance;
- c) the implications and potential consequences of not conforming to the management system requirements;
- d) incidents and the outcomes of investigations that are **relevant to them**;
- e) hazards, OH&S risks and actions determined that are relevant to them;
- f) the ability to remove themselves from work situations that they consider present an imminent and serious danger

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7.4 Communication

Must define **internal** and **external** requirements

- a) on what it will communicate;
- b) when to communicate;
- c) with whom to communicate:
 - internally among the various levels and functions of the organization;
 - among contractors and visitors to the workplace;
 - among other **interested parties**;
- d) how to communicate.

Maintained as **documented information**

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7.5 Documented Information

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Documented information

Current documents are available **where and when it is needed**

- Ensure that if you use electronic documents employees have access

Address the following:

- Distribution, access, retrieval and use
- Storage and preservation
- Control of changes
- Retention and disposition

Documents must be reviewed

Need to account for External Documents (manuals)

Note: This section replaces OHSAS 18001 sections: documentation, control of documents and control of records

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8 Operation

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8.1 Operational planning and control

- a) establishing criteria for the processes;
- b) implementing control of the processes in accordance with the criteria;
- c) maintaining and retaining documented information to the extent necessary to have confidence that the processes have been carried out as planned;
- d) adapting work to workers.

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8.1.2 Eliminating hazards and reducing OH&S risks

- 1) **Elimination** – physically remove the hazard (i.e. designated walkways)
- 2) **Substitution** – replace the hazard (i.e. less dangerous chemical)
- 3) **Engineering Controls** – isolate people from the hazard (i.e. machine guarding)
- 4) **Administrative Controls** – change the way people work (i.e. procedure)
- 5) **Personal Protective Equipment** – last line of defense

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8.1.3 Management of Change

Includes control of planned **temporary** and permanent changes

- a) new products, services and processes, or changes to existing products, services and processes, (*man, method, material and machine*)
- b) changes to legal requirements and other requirements;
- c) changes in **knowledge or information** about hazards and OH&S risks;
- d) developments in knowledge and technology.

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8.1.4 Procurement

The organization **shall** establish, implement and maintain a process(es) to control the procurement of products and services in order to ensure their conformity to its SMS.

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8.1.4.2 Contractors

- Identify hazards related to contractor impact on operations and operations impact on contractors.
- The organization shall ensure that the requirements of its SMS are met by contractors and their workers. The organization's procurement process(es) shall define and apply occupational health and safety criteria for the selection of contractors.

Contractor: external organization provided service to the organization in accordance with agreed specifications, terms and conditions

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8.1.4.3 Outsourcing

The organization **shall** ensure that outsourced functions and processes are controlled. The organization **shall** ensure that its outsourcing arrangements are consistent with legal requirements and other requirements and with achieving the intended outcomes of the SMS. The type and degree of control to be applied to these functions and processes shall be defined within the SMS.

Outsource: make an arrangement where an external organization performs part of the organization's function or process

Process: set of interrelated or interacting activities which transforms inputs into outputs

Note: Think carefully when determining what is considered a service, function or process. This can be documented in scope.

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8.2 Emergency Preparedness and Response

Identify potential for emergencies

- Include neighbors/adjacent sources

Develop plan for how to respond to emergencies

- Outside Support
- Roles and Responsibilities

Identify evacuation routes and assembly points

Internal and external communication plans

- Mass notification
- What does public get to know

Drills

- Document
- Adjust plans as necessary

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9 Performance evaluation

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9.1 Monitoring, measurement, analysis and performance evaluation

The organization **shall** determine:

- What needs to be monitored and measured
- Methods used
- Criteria against which performance will be evaluated
- When the monitoring shall be performed
- When the results will be analyzed, evaluated and communicated

Must be maintained as **documented information**

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9.1.2 Evaluation of compliance

- Evaluate compliance with **all** legal and other requirements
- Required to be completed at a determined frequency
- Can take credit for corporate audits or external parties
- Requires **documented information**

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9.2 Internal audit

- Must be scheduled
- Nonconformance must be addressed
- Audit Results must be communicated
- Auditors must be objective and impartial
 - Can be aided by technical experts
 - Internal or external to the organization
- Not every element of standard or every area must be covered every year
 - Prioritize highest risk (i.e. operational controls) and review lower risk (i.e. documentation less frequently)

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9.3 Management review

- Completed at Prescribed Intervals
- Opportunity to show progress and ask for assistance if there an area of concern
- Does not have to happen in one meeting, can be spaced out throughout the year
 - Take credit for regular methods of communication
 - Create a table outlining which meetings cover which requirements
- Relevant results must be communicated to workers
- Changes have been made to specific requirements of inputs and outputs

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9.3 Management review

Inputs

- a) the status of actions from previous management reviews;
- b) changes in external and internal issues that are relevant to the SMS management system, including:
- c) the extent to which the SMS policy and the SMS objectives have been met;
- d) information on the SMS performance, including trends in:
- e) adequacy of resources for maintaining an effective SMS management system;
- f) relevant communication(s) with interested parties;
- g) opportunities for continual improvement.

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9.3 Management review

Outputs

- Decisions related to:
 - the continuing suitability, adequacy and effectiveness of the SMS in achieving its intended outcomes;
 - continual improvement opportunities;
 - any need for changes to the SMS;
 - resources needed;
 - actions, if needed;
 - opportunities to improve integration of the SMS with other business processes;
 - any implications for the strategic direction of the organization.

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10 Improvement

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10.2 Incident, nonconformity and corrective action

The organization shall report, investigate, take action to determine and manage **incidents and nonconformities**.

- React in a timely manner to control and correct as well as deal with consequences
- Evaluate with workers
 - Investigate
 - Determine cause
 - Determine if similar incidents or nonconformities exist
- Review existing assessments of risks
- Determine and implement actions needed
- Assess any new or changed hazards
- Review the **effectiveness**

Must be maintained as **documented information**.

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10.3 Continual improvement

The organization shall continually improve the suitability, adequacy and effectiveness of the SMS by:

- a) enhancing SMS performance;
- b) promoting a culture that supports an SMS;
- c) promoting the participation of workers in implementing actions for the continual improvement of the SMS;
- d) communicating the relevant results of continual improvement to workers, and, where they exist, workers' representatives;
- e) maintaining and retaining documented information as evidence of continual improvement.

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Next steps

Conduct GAP Analysis

Considerations for new numbering/naming conventions

If you have an existing OHSAS 18001 certificate talk with your registrar about timing of transition and determine audit plan

Before transition the following must be completed:

Implementation of all new requirements

Internal Audit including new requirements

Management Review to the new standard requirements

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Questions

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