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*Occupational Health and
Safety Management System
in accordance with the
ISO 45001:2018*

**Standard
Management
Systems**

2018

Introduction

What this book is about?

- ✓ unified approach to building standard management systems, including:
 - ISO 9001:2015 Quality Management Systems. Requirements.
 - ISO 14001:2015 Environmental Management Systems. Requirements with guidance for use.
 - ISO 45001:2018 Occupational health and safety management systems - Requirements with guidance for use.
- ✓ main principles of management and their implementation in the organization's management system.
- ✓ understanding and implementation of all ISO 45001:2018 requirements.

Special attention is paid to the new requirements of the latest versions of management system standards:

- *Understanding the organization and its context;*
- *Understanding the needs and expectations of interested parties;*
- *Actions to address risks and opportunities;*
- *Organizational knowledge;*
- *Control of externally provided processes, products and services.*

The processes of the quality management system are defined and described based on the real-life enterprise OHSMS implementation.

How is this book different from all other similar books?

The book is aimed at providing readers with **knowledge** and **understanding** of the requirements of the **ISO 45001:2018** standard and the **ability to independently develop** the organization's quality management systems.

Practical focus is the main feature of the book. When writing the textbook, we have incorporated over 20 years of authors' experience in developing, implementing and bringing to certification of ISO 9001, ISO 14001, ISO 45001 standard management systems.

Particular attention is paid to the **process approach implementation**, including the definition of QMS processes, development of process **models** and process **criteria**.

The book contains a lot of **illustrations**, tables, and diagrams that **facilitates** the comprehension.

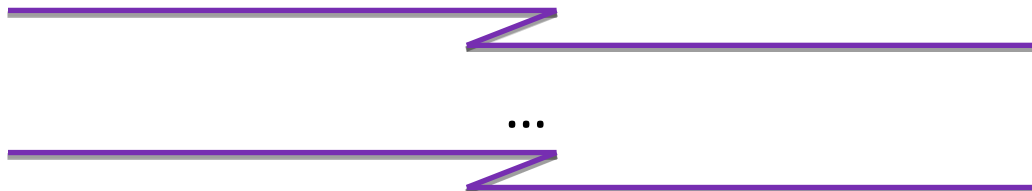
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4.2 Understanding the needs and expectations of workers and other interested parties

A. ISO 45001:2018 requirements

1) OH&S management system must identify interested parties – the categories of people or organizations that affect OH&S management system or are affected by the OH&S management system.

Workers of the organization are the key interested party of the OH&S management system. In addition, the following can be referred as interested parties:

- Legal and regulatory bodies of municipal, national or international level;
- representatives and organizations of workers, including trade unions;
- owners of the organization, for example, shareholders;
- suppliers, contractors, consumers;
- parent organizations;
- community of the general public;
- health and safety organizations.

2) It is necessary to identify needs and expectations of interested parties.

3) Of all the needs and expectations, those that are legal requirements and must be fulfilled or may become such in the near future (for example, a legislative act passes through the approval stages) should be identified.

Other needs and expectations are considered and accepted by the decision of the organization. They must be considered in the planning and operation of the OH&S management system.

B. Implementation of the organization’s OH&S management system

Interaction of the organization with the interested parties (fig. 4.2-01) includes:

- Definition of interested parties relevant to the OH&S management system;
- Monitoring and analysis of needs and expectations of interested parties.

Definition of interested parties relevant to the OH&S management system is conducted in Management review (sec. 9.3).

Monitoring and analysis of needs and expectations of interested parties is conducted on the regular basis in accordance with the diagram shown in fig.4.2-01.

Interested parties	Basic needs and expectations of an interested party	Form of information about the needs and expectations of an interested party
Workers	No injuries. Minimizing negative impact on health. Adapting of work, it’s organization and	Consultation and participation of workers (sec.5.4) Internal communication (sec.7.4.2)

Interested parties	Basic needs and expectations of an interested party	Form of information about the needs and expectations of an interested party
	<i>environment to workers. Ensuring favorable conditions for production and occupational safety. Providing means of individual protection, protective clothing.</i>	
Owners, shareholders	<i>Minimizing risks and losses. Increasing market capitalization.</i>	<i>Shareholders (owners) meetings minutes - reviewed by management</i>
State through legal and regulatory bodies (local, regional, state /provincial, national or international)	<i>Increasing of life expectancy, as a component of sustainable development of the state. Observance of national laws and international norms by all subjects of occupational safety at all levels. Implementation of state policy in the field of occupational safety.</i>	<i>Legal requirements – reviewed by the Occupational safety department (sec.6.1.3)</i>
Society	<i>Health of the Nation</i>	<i>External communication (sec.7.4.3)</i>
Consumers	<i>Minimizing the risks of injuries when receiving a service. Moral satisfaction from the fact that the consumed products are not connected with injuries and harmful production.</i>	<i>Information on customer relations - analyzed and used as advertising by marketing and sales services.</i>
Providers	<i>Increasing the organization's loyalty</i>	<i>Procurement requirements include OH&S requirements (sec.8.1.4.1)</i>
Contractors	<i>Minimizing OH&S hazards and risks.</i>	<i>Coordination with contractors in OH&S hazard identification and risk assessment (sec.8.1.4.2)</i>

Fig. 4.2-01. Diagram of monitoring and analysis of interested parties needs and expectations.

Two-way communication of the organization with the interested parties can be carried out, including the transfer of organization's OH&S management system activities information.

Each worker has an opportunity to be familiarized with the functioning of the OH&S management system through internal communication (sec.7.4.2) and word own needs and expectations via:

- Expressing one's opinion at the organization's OH&S meetings (sec.7.4.2);
- Discussing drafts of the OH&S normative documents on the intranet before their approval (sec.7.5);
- Submitting proposals related to their needs and expectations, as well as deficiencies or improvements in the OH&S management system (sec.10.2).

The results of interested parties' needs and expectations' monitoring and analysis are taken into account:

- When defining the scope of the OH&S management system (sec.4.3);
- In management review (sec.9.3);
- In operational planning and control (sec.8.1).

C. Verification of the requirements (questions for audit)

1. Who for the organization are interested parties that are relevant to the OH&S Management System?
2. What are the needs and expectations of workers?
3. What are the needs and expectations of other interested parties?
4. In what processes the effort to fulfill stakeholder's interests is:
 - planned,
 - performed,
 - monitored and
 - improved?



5.4 Consultation and participation of workers

A. ISO 45001:2018 requirements

Consultations involve informing and clarifying the opinions of workers involved in the OH&S management system on the following issues:

- *identification of the needs and expectations of interested parties;*
- *setting policies, OH&S objectives and plans to achieve them;*
- *distribution of responsibility and authority;*
- *compliance with legal requirements and regulatory documents;*
- *control over outsourcing, procurement and contractors;*
- *monitoring, measurement and evaluation of OH&S indicators;*
- *planning and conducting of internal audit;*
- *implementation of continual improvement.*

Participation includes involvement of workers that are part of the OH&S management system in:

- *identifying mechanisms for consultation and participation;*
- *identifying and eliminating hazards, as well as assessing opportunities and reducing OH&S risks;*
- *identification of competence requirements, training needs, conducting of training and evaluation of training;*

- *internal communication (how, to whom, when, in what form);*
- *determination of control methods, their implementation and use of results;*
- *investigation of incidents and nonconformities and determination of corrective actions.*

To ensure consultation and participation of workers in the OH&S management system, it is necessary to:

- *establish mechanisms, time and resources necessary for consultation and participation;*
- *provide timely access to up-to-date OH&S management system information;*
- *eliminate obstacles or barriers to participation, such as reprisals or threats for truthful information, language or educational barriers (removing barriers include free training, training during working hours, etc.).*

B. Implementation of the organization's OH&S management system

The organization established, implemented and maintains processes for consultation and participation of workers at all levels and functions, as well as workers' representatives, in development, planning, operation, performance evaluation and actions to improve the OH&S management system as follows.

a) Mechanisms and resources for consultation and participation of workers are identified and provided via:

- Organization's OH&S meetings;
- OH&S training, including briefings (sec.7.2);
- Inclusion of sections on the distribution of responsibility and authority for OH&S in job descriptions (sec.5.3);
- Employees' participation in expert groups, including identification of hazards and assessment of risks and opportunities (sec.6.1.2);
- Employees' participation in commissions, including investigation of incidents (sec.10.2);
- Integration of OH&S activities into business processes of the organization (sec.6.1.4);
- Emergency preparedness and response (sec.8.2);
- Discussions of draft OH&S normative documents on the intranet before their approval (sec.7.5);
- Submitting proposals regarding their needs and expectations, as well as deficiencies or improvements in the OH&S management system (sec.10.2).

Organization's OH&S meetings include:

- Organization's coordinating council meetings – are chaired by the director and held at least once a year (sec. 9.3);
- Monthly OH&S meetings of subdivision leaders – chaired by the head of the occupational safety department;

- OH&S issues review at the operational production meetings of structural subdivisions - chaired by the structural subdivision's leader;
- OH&S focused meetings at the level of structural subdivision leaders (or at the structural subdivision level) - chaired by the head of the occupational safety department as required.

Note

The structure and level of OH&S meetings in the organization is adopted by the Coordinating council.

Decisions of the organization's OH&S meetings (except daily operational production meetings of structural subdivisions) are recorded and managed as documented information (sec.7.5).

b) Timely access to clear, understandable and up-to-date OH&S management system information is provisioned via internal communication (sec.7.4.2);

c) To remove barriers for participation of workers:

- OH&S training and continuous education is provided free of charge (whenever possible);
- OH&S training is conducted during working hours (whenever possible);
- Each employee can freely submit proposals for deficiencies, including information on blocks and barriers for participation of workers, or improvements to the OH&S management system (sec.10.2).

d) Consultation of workers is provided as per the diagram below (fig. 5.4-01).

#	Object of consultation of workers	Mechanism of consultation of workers	OH&S Manual Section
1	<i>Identifying the needs and expectations of interested parties</i>	<ul style="list-style-type: none"> - Voicing worker's opinion at OH&S structural subdivisions meetings. - Discussions of draft OH&S normative documents on intranet before their approval. - Submission of workers' proposals regarding their needs and expectations, as well as deficiencies or improvements of the OH&S management system. 	4.2
2	<i>Establishing of OH&S policy</i>	<ul style="list-style-type: none"> - Clarification at structural subdivisions OH&S meetings. - Explanation during OH&S training, including briefings. 	5.2
3	<i>Assigning organizational roles, responsibilities and authorities</i>	<ul style="list-style-type: none"> - Discussion at structural subdivisions OH&S meetings. 	5.3
4	<i>Definition of compliance with legal requirements and other requirements</i>	<ul style="list-style-type: none"> - Clarification at structural subdivisions OH&S meetings. - Explanation during OH&S training, including briefings. 	6.1.3
5	<i>Establishing of OH&S objectives and planning</i>	<ul style="list-style-type: none"> - Clarification at structural subdivisions OH&S meetings. 	6.2

#	Object of consultation of workers	Mechanism of consultation of workers	OH&S Manual Section
	<i>to achieve them</i>		
6	<i>Determining of applicable outsourcing, procurement and suppliers' management</i>	<ul style="list-style-type: none"> - Clarification at structural subdivisions OH&S meetings. - Explanation during OH&S training, including briefings. 	8.1.4.1, 8.1.4.2, 8.1.4.3
7	<i>Determining what needs to be monitored, measured and evaluated</i>	<ul style="list-style-type: none"> - Clarification at structural subdivisions OH&S meetings. - Explanation during OH&S training, including briefings. 	9.1.1
8	<i>Planning, creating, implementing and maintaining an audit program</i>	<ul style="list-style-type: none"> - Discussion at meetings, including an introductory and final internal audit meeting. - Explanation in training, including training of internal auditors 	9.2
9	<i>- Ensuring continual improvement</i>	<ul style="list-style-type: none"> - Explanation during training. - Clarification at structural subdivisions OH&S meetings. 	10.2.2

Fig. 5.4-01. Diagram of consultation of workers on the development, planning, operation, efficiency evaluation and actions to improve the OH&S management system.

e) Participation of workers is ensured according to the diagram (fig. 5.4-02).

#	Object of participation of workers	Mechanism of participation of workers	OH&S Manual Section
1	<i>Determining mechanisms for consultation and participation in them.</i>	<ul style="list-style-type: none"> - Voicing worker's opinion at OH&S structural subdivisions meetings. - Submission of workers' proposals regarding their needs and expectations, as well as deficiencies or improvements of the OH&S management system. 	-
2	<i>Determining hazards and assessing risks and opportunities</i>	<ul style="list-style-type: none"> - Participation of workers in expert groups. 	6.1.2
3	<i>Actions to eliminate hazards and reduce OH&S risks</i>	<ul style="list-style-type: none"> - Integration of OH&S activities into the business processes of the organization. - Emergency preparedness and response. 	6.1.4, 8.2
4	<i>Determining requirements for competence, training needs, conducting training and training evaluation</i>	<ul style="list-style-type: none"> - Discussion at structural subdivisions OH&S meetings. - Participation in OH&S training and training evaluation. 	7.2
5	<i>Determining what should</i>	<ul style="list-style-type: none"> - Discussion at structural subdivisions OH&S meetings. 	

#	Object of participation of workers	Mechanism of participation of workers	OH&S Manual Section
	<i>be communicated and how it should be done</i>	<ul style="list-style-type: none"> - Discussions of draft OH&S normative documents on intranet before their approval, including documents that regulate communication. - Submission of proposals regarding deficiencies or improvements of the OH&S management system. 	7.4
6	<i>Identification of control measures and their effective implementation</i>	<ul style="list-style-type: none"> - Discussion at structural subdivisions OH&S meetings. - Submission of proposals regarding deficiencies or improvements of the OH&S management system. 	8.1, 8.1.3, 8.2
7	<i>Investigation of incidents and nonconformities, and identifying corrective actions</i>	<ul style="list-style-type: none"> - Explanation during OH&S training, including briefings. - Clarification at structural subdivisions OH&S meetings. 	10.1

Fig. 5.4-02. Diagram of participation of workers in the development, planning, operation, efficiency evaluation and actions to improve the OH&S management system.

C. Verification of the requirements (questions for audit)

1. What mechanisms (format) are used for consultation and participation of workers?

2. How workers are consulted? [on each of the following issues]

- determining the needs and expectations of interested
- establishing the OH&S Policy
- assigning organizational roles, responsibilities and authorities as applicable
- determining how to fulfil legal requirements and other requirements
- establishing OH&S objectives and planning to achieve them
- determining applicable controls for outsourcing, procurement and contractors
- determining what needs to be monitored, measured and evaluated
- planning, establishing, implementing and maintaining an audit program
- establishing a continual improvement process

3. How to ensure the participation of workers? [in the following tasks]:

- determining the mechanisms for their consultation and participation
- hazard identification and assessment of risks and opportunities
- actions to eliminate hazards and reduce OH&S risks
- identification of competency requirements, training needs, training and evaluation of training
- determining what needs to be communicated and how this shall be done
- determining control measures and their effective implementation and use
- investigating incidents and nonconformities and determining corrective actions

8.2 Emergency Preparedness and Response

A. ISO 45001:2018 requirements

Preparation and response to potential emergencies should be implemented as a process including:

- a) *emergency response planning, including first aid;*
- b) *ensuring the preparation of planned response measures;*
- c) *periodic testing and planned response training;*
- d) *evaluation of effectiveness and, if necessary, review of planned response after testing and after an emergency;*
- e) *communication and provision of information to all worker regarding their duties and responsibilities;*
- f) *transfer of information to contractors, visitors, emergency services, government agencies and, if necessary, local society;*
- g) *taking into account the needs and capabilities of all interested parties and their involvement, if necessary, in the implementation of the planned response.*

It is necessary to document:

- 1) ***plans to respond to possible emergencies** (regulatory documents);*
- 2) ***records** confirming the conduct of training, according to the response plans.*

B. Implementation of the organization's OH&S management system

To ensure emergency preparedness, the organization established emergency headquarters. The Emergency headquarters and the Occupational safety department conduct analysis of sites and processes that contain potential accidents and emergencies. For newly constructed sites and facilities, hazardous areas and processes are defined in the design documentation.

Based on the data obtained from the analysis in structural subdivisions with high-risk facilities, a 'Plan for Localization and Elimination of Emergencies and Accidents' (hereinafter referred to as 'the PLEEA') is developed, which addresses potential emergencies (blocks of the PLEEA) and personnel actions to eliminate them.

- a) Emergency response preparation is ensured via:
 - PLEEA development and implementation by conducting of personnel emergencies actions training;
 - emergency alert system maintenance;

- continual improvement of technological processes and equipment, introduction of automated process control systems;
 - constant readiness of the fire department operational staff for immediate departure to the place of an emergency (accident), conducting rescue operations, providing and organizing preventive work on fire safety;
 - carrying out preventive actions based on the results of the analysis of emergency situations at similar organizations, periodic verification and revision, if necessary, of emergency preparedness and action plans, including after the accidents that have occurred.
- b) The response to real emergencies is conducted by the personnel and emergency services of the organization in accordance with the PLEEA.
- c) Actions to prevent or mitigate the effects of emergencies commensurate with the magnitude of the emergency and include:
- implementation of personnel medical protection measures, which consists of preventing or diminishing the scope of damage, providing timely first aid to victims and their treatment;
 - protecting the life and health of workers and property from fire and maintaining an appropriate level of fire safety;
 - prevention and elimination of emergencies of anthropogenic and natural character, protection of the population and territories from the consequences of accidents, catastrophes and natural disasters.
- d) Periodic verification of planned response actions is carried out in accordance with the annual PLEEA training sessions' schedule for operating personnel, where each block of PLEEA is given in details. The schedule is signed by the developers, agreed with subdivisions leaders that are conducting the training sessions, and approved by the director.

PLEEA training sessions are conducted to check the readiness of structural subdivisions personnel to save people and mitigate the incident; the availability of personal protective equipment and the means of incident mitigation, as well as to train the staff of the subdivision to coordinate with emergency services specialists.

PLEEA training sessions are conducted at the level of the workshop, organization or with the involvement of municipal emergency services, depending on the scale of the consequences of the potential emergency of the PLEEA block, where classes are held.

Based on each PLEEA training session results an act is drafted. The act is signed by the Commission members and approved by the subdivision leader. The act provides evaluation for personnel actions and the adequacy of the developed incident mitigation procedure. In case of unsatisfactory results, measures are developed to improve the level of incident mitigation preparedness, including conducting subsequent PLEEA training sessions.

Implementation of PLEEA training sessions' annual schedule is monitored by management review (sec.9.3).

- e) Periodic analysis and review of Emergency preparedness and response is carried out based on the analysis of the conducted PLEEA training results.

After an actual emergency, the analysis conducted and PLEEA is revised if necessary.

- f) Interested parties (contractors, emergency response services, government authorities, working under the management of the organization, visitors and the local community and individuals) are provided, as appropriate, with the following information:

- schedules and acts based on the conducted PLEEA training sessions results;
- knowledge testing protocols on the results of emergency preparedness and response training in subdivisions.

Interested parties are involved, as appropriate, in the development of the planned response.

To ensure that emergency preparedness and response is carried out as planned, the organization maintains documented information:

- Plan of localization and elimination of emergencies and accidents (kept permanently).
- Annual PLEEA training sessions' schedule (kept for 5 years).

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