



ISO 45001 Occupational Health and Safety Management Systems

Information Guide



Updated September 13, 2016

ISO 45001 Overview

ISO 45001 is a new international standard for occupational health and safety (OH&S), providing a framework for managing the prevention of death, work-related injury and ill health, with the intended outcome of improving and providing a safe and healthy workplace for workers and persons under an organization's control.

ISO 45001, Occupational health and safety management systems takes into account other international standards in this area, such as OHSAS 18001. The standard is intended to help organizations, regardless of size or industry, in designing systems to proactively prevent injury and ill health. All of its requirements are designed to be integrated into an organization's management processes.

The draft international standard (DIS) of ISO 45001:2016 was published on February 12, 2016 and the ballot period ended May 12. With a final tally of 71 percent in favor to 29 percent against, the DIS ballot results fell short of the required votes, as no more than a quarter of the votes can be “against” for the standard to move on to the next stage of approval. As a result, the development of ISO 45001 will now progress to a second DIS, beginning in January 2017 and pushing back the estimated publication date to December 2017.

During the ISO/PC283 Project Committee meeting June 6-10 2016 in Toronto, Canada, the 3,000+ comments raised during the initial ballot period were discussed. The Project Committee meeting in October 2016 will review the remaining comments and finalize the second DIS, which will then be balloted again.

Key Benefits of ISO 45001

ISO 45001 will implement the Annex SL process and structure, making integration of multiple ISO management system standards easier, such as ISO 9001, Quality management systems and ISO 14001, Environmental management systems.

It uses a simple plan-do-check-act (PDCA) model, which provides a framework for organizations to plan what they need to put in place in order to minimize the risk of harm. The measures should address concerns that can lead to long-term health issues and absence from work, as well as those that give rise to accidents.

ISO 45001 enables an organization, through its OH&S management system, to integrate other aspects of health and safety, such as worker wellness/wellbeing. The ISO 45001 standard calls for the organization's management and leadership to integrate responsibility for health and safety issues as part of the organization's overall plan rather than shift responsibility to, for example, a safety manager.



Why an ISO Standard?



According to the International Labor Organization, **approximately** 2.34 million people died as a result of work-related accidents and diseases in 2013.

- Approximately 2 million are the result of work-related illnesses and
- Approximately 321,000 are due to accidents.

Employees feel their needs and safety are being taken into account.



A strong occupational health and safety management system can bring these numbers down by reducing accidents and ill health linked to the workplace.

May help avoid legal costs and may even reduce insurance costs.



Create a positive corporate culture



ISO brings together international expertise.

Provides systematic organizational framework that helps protect and reduces risk to employees.



ISO standards are recognized around the world

ISO 45001 is being developed by ISO project committee ISO/PC 283, *Occupational health and safety management systems*.



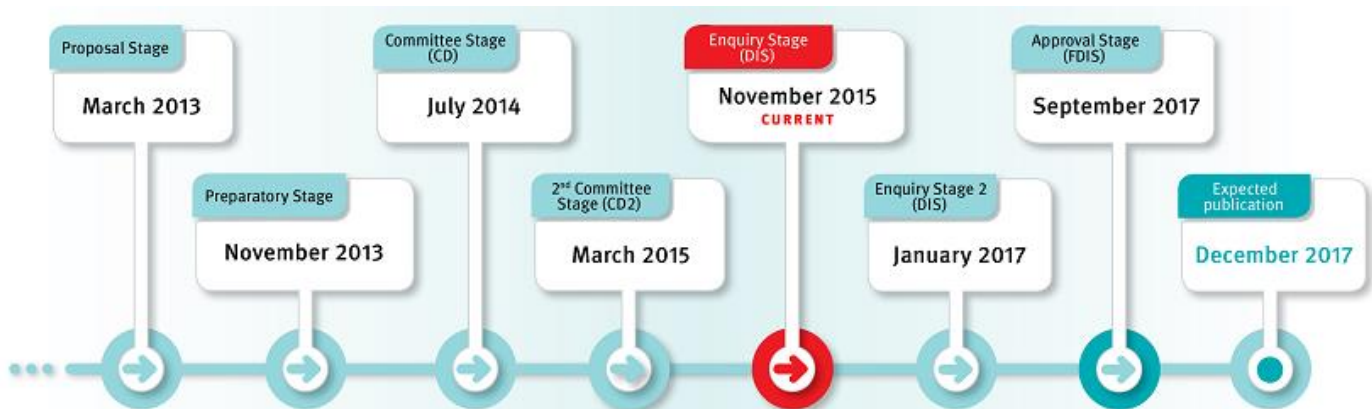
Nearly 70 countries are involved in the development of ISO 45001

The Secretariat is currently held by the ISO member for the United Kingdom, BSI.



Easy integration with ISO 14001, ISO 9001, TS 16949, AS9100, ISO 22000 etc.

ISO 45001 Development Timeline (via [ISO](#))



- **Proposal Stage:** Confirm new international standard “subject area” is needed.
- **Preparatory Stage:** Working group (WG) is set up to prepare the working draft (WD).
- **Committee Stage:** WD is shared with members of the parent committee. A committee draft (CD) is circulated to committee members for comment/reach consensus
- **Enquiry Stage:** The Draft International Standard (DIS) is circulated to all ISO members who get 3-months to vote and comment
- **Approval Stage:** The Final Draft International Standard (FDIS) is circulated to all ISO members for a 2-month vote. This stage is skipped if the DIS is approved.

Emerging Key Changes

- | | | |
|---|--|--|
| 1. Structure of International Standard | 5. Worker Participation (Worker Representatives) | 9. Documented Information |
| 2. Organizational Context | 6. Hazard Identification/ Assessment of Risk | 10. Outsourcing, Procurement & Contractors |
| 3. Understanding Needs & Expectations of Interested Parties | 7. Planning | 11. OH&S Performance Evaluation |
| 4. Leadership | 8. Need to prevent ill-health & injuries | |

Key Change 1: Structure of International Standard - New Annex SL Structure

Foreword
Introduction
0.1 Background
0.2 Aim of OH&S Management System
0.3 Success Factors
1. Scope
2. Normative References
3. Terms & Definitions
4. Context of the Organization
5. Leadership & Worker Participation
6. Planning
7. Support
8. Operation
9. Performance Evaluation
10. Improvement
Annex A: Guidance on use of this International Standard
Bibliography
Alphabetical Index of Terms

Key Change 2: Organizational Context (Clause 4)

Results of context review should be used to:

- Understand & determine scope and issues (positive & negative) that can affect how organization manages OH&S management system
- Determine risk & opportunities
- Developing or enhancing OH&S Policy & set objectives
- High Level Understanding needs & expectations of workers & other interested parties (and differences for managerial & non-managerial workers)

Issues include: conditions, characteristics or changing circumstances that can affect OH&S. Internal/external issues can result in risks/opportunities

External Context Issues

- Cultural, political, economic, legal, natural surroundings, market competition
- New competitors, technologies, laws, new occupations
- Key drivers & trends in industry sector
- Relationships, perceptions & values of external interested parties

Internal Context Issues:

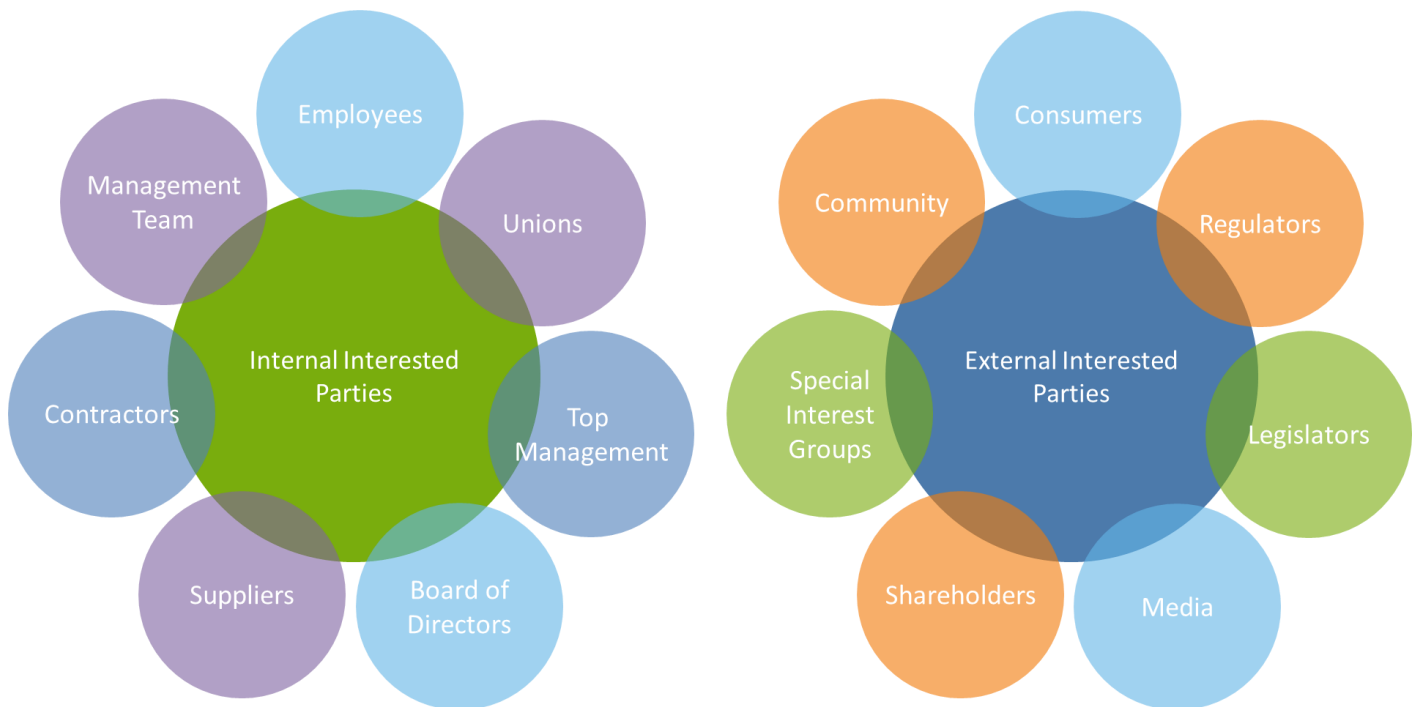
- Organizational structure, roles, accountabilities; Capabilities; organizational culture
- Information systems, flows, decision making;
- Intro of new products and equipment;
- Standards, guidelines; contractual relationships;
- Change in relation to working time requirements

Key Change 3: Understanding Needs of Interested Parties (Clause 4)

- Needs & Expectations of both managerial & non-managerial workers & workers representatives (where they exist)
- Affect OH&S management system or which perceive themselves to be affected by OH&S system (A.4.2)
- Worker & as appropriate workers' representatives
- Legal & Regulatory authorities
- Parent Organization
- Suppliers, co-contractors & subcontractors
- Workers' organizations (trade unions) and employers' organizations
- Owners, shareholders, clients, visitors, local community, neighbors, general public
- Occupational health & safety organizations; occupational safety and health-care professionals (e.g., doctors, nurses)

Note – Needs & expectations from interested parties only become obligatory requirements for an organization if organization chooses to adopt them.

Interested Parties can include:



Key Change 4: Leadership (Clause 5)

Leadership has been enhanced to ensure commitment & active support from top management

- Taking overall responsibility & accountability for protection of workers' work-related health & safety
- Ensuring OH&S policy & objectives established
- OH&S compatible with organizations strategic direction
- Integrating OH&S into organizational business process
- Allocating necessary resources OH&S (establish, implement, maintain & improve)
- Ensure Active participation of workers & workers' representatives (consultation & removing obstacles)
- Internal/External Communications supporting OH&S
- Ensuring OH&S management systems achieve intended outcome(s)
- Directing & supporting persons to contribute to effectiveness of OH&S
- Ensuring Continual Improvement of OH&S
- Supporting relevant management roles to demonstrate their leadership as it applies to their areas of responsibility
- Developing, leading and promoting a culture in organization that supports OH&S management system

Key Change 5: Worker Participation (Clause 5)

Non-Managerial Worker Participation

Give additional emphasis to determine:

- Mechanism for participation & consultation
- Hazard identification & assessment of risk
- Actions to control hazard & risk
- Identification of needs of competence, training & evaluation of training
- Information (what & how) to be communicated
- Investigating incidents, non-conformities, & involved in corrective actions
- Needs & expectations of interested parties
- Establishing policy
- Assigning organizational roles, responsibilities, accountabilities & authorities

Key Change 6: Hazard Identification/Assessment of Risk (Clause 6)

Hazard identification should proactively identify any sources or situation arising from organizations activities, with potential for work-related injury & ill health. Source/situations could include, but not limited to:

- **Sources:** hazardous substances, radiation, temperature, pressure, dust, noise & vibration
- **Situations:** working at heights, working in confined space, working alone, worker fatigue, aggressive behavior or harassment, workload and task control
- Hazards can be categorized in many ways, including: physical, chemical, biological psychosocial, physiological; or mechanical and electrical; or based on movement and energy.

Organization shall establish, implement and maintain a process for on-going proactive identification of hazards arising, taking into account, but not limited to:

1. Routine and non-routine activities and situations, including:
 - a. Infrastructure, equipment, material, substances & physical conditions in the workplace
 - b. Hazards that arise as a result of product design
 - c. Human factors
 - d. How the work is actually done
2. Emergency situations
3. People, including considerations of:
 - a. those who access workplace, including workers, contractors, visitors and other persons
 - b. Those in vicinity of workplace that can be affected by organizations activities
 - c. Workers at location not under direct control of organization
4. Actual or proposed changes in organization, operations, processes activities & OH&S management systems
5. Changes in knowledge of or information about hazards
6. Past incidents, internal/external to the organization including emergencies and their causes
7. How work is organized, and social factors, including workload, work hours, leadership and culture of organization

Key Change 7: Planning (Clause 6)

When planning for OH&S management system, organization shall

- Consider issues referred to in “organizational context” (4.1)
- Requirements referred to in “interested parties” (4.2)
- Scope of its OH&S management system (4.3)
- Determine risks and opportunities that need to be addressed

When planning how to achieve OH&S objectives, the organization shall determine:

1. What will be done
2. What resources will be required
3. Who will be responsible
4. When it will be completed
5. How it will be measured through indicators (if practicable) & monitored
6. How results will be evaluated
7. How the actions to achieve OH&S objectives will be integrated into the organizations business process

Key Change 8: Need to Prevent Ill-Health/Injuries (Clause 6)

ILO ILS recommend that where workers identify circumstances of danger or a hazardous environmental which can cause injury and ill health, they should be able to remove themselves & inform the organization of the circumstances without risk of penalization.

Five basic commitments for OH&S Policy in ISO 45001

- Provide safe & healthy working conditions for the prevention of work-related injury & ill health;
- Satisfy applicable legal requirements & other requirements
- Control OH&S risks using the hierarchy of controls (see 8.12)
- Continual Improvement of OH&S management system to enhance OH&S performance
- Participation

Key Change 9: Documented Information (Clause 7.5)

Organization will need to maintain & retain documentation information of OH&S objectives & plans to achieve them, keeping complexity to minimum

Aimed at preventing the risk of unintended use of obsolete documentation information

Should not have effect of preventing workers obtaining full & complete picture of hazards/risks of their work.

Control of Documented Information

- Available & suitable for use, where & when needed
- Adequately protected (loss, confidentiality, use, integrity)
- Control
 - Distribution, access, retrieval, use
 - Storage & preservation
 - Control of changes
 - Retention & disposition
 - Access by workers, & where they exist, workers representatives, to relevant documented information

Key Change 10: Outsourcing, Procurement & Contractors (Clause 8)

Outsourcing:

Organization shall ensure that **outsourced processes** affecting OH&S management system are controlled.

An outsourced process is one that:

- Is within scope of OH&S management system
- Is integral to organizations functioning
- Is needed for OH&S management system to achieve its intended outcome
- Liability for conforming to requirements is retained by the organization
- Organization & external provider have a relationship where the process is perceived by interested parties as being carried out by the organization

Procurement:

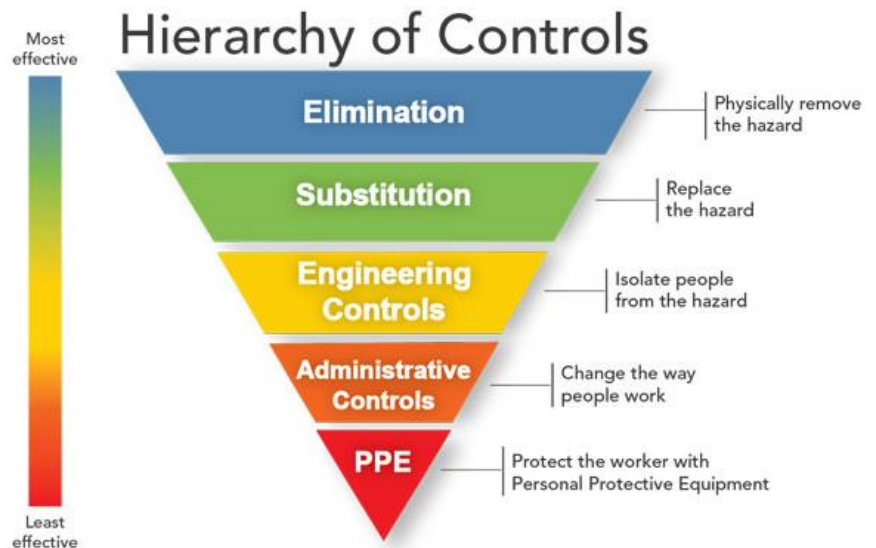
Establish controls to ensure that the **procurement** of goods (for example products, hazardous materials or substances, raw materials, equipment) and services conform to its OH&S management system requirements.

Prior to procuring goods & services, the organization should identify procurement controls that:

- Identify & evaluate potential OH&S risks associated with products, materials, equipment, service
- Requirements for products, materials, equipment, services to conform to OH&S objectives
- Need for information, participation & communications
- Before using verify equipment, installations & materials are adequate before being released for use by workers
- Delivered to specifications & are tested to ensure works as intended
- Usage requirements, precautions or other protective measures are communicated & made available.

Organization shall establish a process & determine controls for achieving reduction in OH&S risks using following hierarchy:

- **Hazard Elimination:** avoiding risks, adapting work to workers, (integrate health safety and ergonomics when planning new work places; create physical separation of traffic between pedestrians and vehicles)
- **Substitution:** replacing the dangerous by non-dangerous or less dangerous (replacing solvent based paint with water based paint)
- **Engineering Controls:** Implement collective protective measures (isolation; machine guarding; ventilation; noise reduction etc.)
- **Administrative Controls:** Giving appropriate instructions to workers (lock out processes; induction; forklift driving licenses, etc.)
- **Personal Protective Equipment (PPE):** Provide PPE and instructions for PPE utilization/maintenance, i.e. safety shoes, safety glasses, hearing protection, chemical & liquid resistant gloves; electrical protection gloves, etc.)



Key Change 11: OH&S Performance Evaluation (Clause 9)

Organization shall establish, implement and maintain a process for monitoring, measurement and evaluation. Shall determine what needs to be monitored and measured, including...

- Criteria against which the organization will evaluate OH&S performance
- Methods for monitoring, measurement, analysis, and evaluation, as applicable, to ensure valid results
- When the monitoring and measuring shall be performed
- When the results from monitoring and measurement shall be analyzed, evaluated and communicated

Examples of what could be monitored and measured can include:

- Progress on meeting policy commitments, achieving objectives & continual improvement
- Occupational health complaints, health surveillance of workers & work environment monitoring
- Work related incidents, injuries, ill health, complaints, including trends
- Effectiveness of operational controls & emergency exercises
- Proactive & reactive actions affecting OH&S performance
- Competence

ISO 45001 is coming... *What Should You Do?*



Become Informed

- Begin to understand ISO/DIS 45001
- Understand differences between OHSAS 18001 and ISO/DIS 45001



Begin Planning

- ISO 45001 is expected to be published as an international standard in early 2017



Communicate

- Inform your team, top management, organization and interested parties
- Questions, needs or suggestions? Contact NSF-ISR at information@nsf-isr.org

NSF-ISR Has the Tools You Need

Whether you are currently registered and would like to gain efficiency by consolidating your audits, or are looking to newly register, we have the tools and knowledge you need to succeed. NSF-ISR is in the process of developing the following tools for customers looking to register to ISO 45001 upon its publication, which will be available on our ISO Standards Transition page, www.nsf.org/info/iso-updates.



**Online
Readiness
Tool**



**Onsite
Informational
Sessions**



**GAP
Analysis**



**Training
Sessions**



**Tailored
Transition
Plans to
meet your
Needs**



**Transitional
Planning**



Webinars



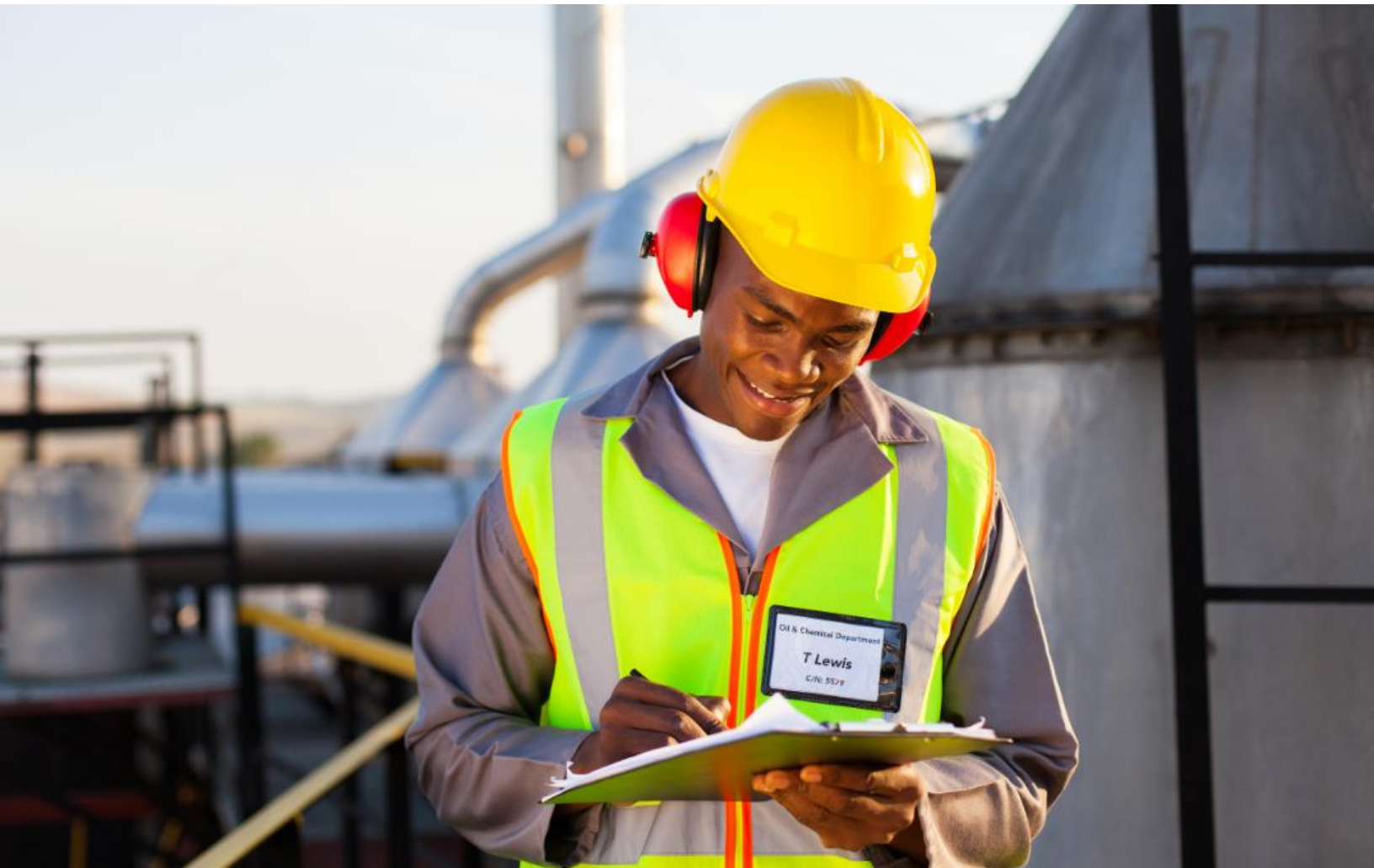
**Specialized
Sessions**



**Upgrade
Planner**



Proactive Actions, Upon Release of FDIS



Comparing ISO 45001 (DIS 1) to OHSAS 18001



ISO 45001	OHSAS 18001:2007
1 Scope	1 Scope
2 Normative references	2 Reference publications
3 Terms and definitions	3 Terms and definitions
★ 4 Context of the organization (title only)	
★ 4.1 Understanding the organization and its context	
★ 4.2 Understanding the needs and expectations of workers and other interested parties	
★ 4.3 Determining the scope of the OH&S management system	4 OH&S management system requirements (title only)
★ 4.4 OH&S management system	4.1 General requirements
★ 5 Leadership and worker participation (title only)	
★ 5.1 Leadership and commitment	
5.2 OH&S policy	4.2 OH&S policy
★ 5.3 Organizational roles, responsibilities, accountabilities and authorities	4.4.1 Resources, roles, responsibility, accountability and authority
5.4 Participation and consultation	4.4.3.2 Participation and consultation
6 Planning (title only)	4.3 Planning (title only)
6.1 Actions to address risks and opportunities (title only)	
6.1.1 General	
6.1.2 Hazard identification and assessment of OH&S risks (title only)	
6.1.2.1 Hazard identification	4.3.1 Hazard identification, risk assessment and determining controls
6.1.2.2 Assessment of OH&S risks and other risks to the OH&S management system	
6.1.2.3 Identification of OH&S opportunities and other opportunities	
6.1.3 Determination of applicable legal requirements and other requirements	4.3.2 Legal and other requirements
6.1.4 Planning to take action	
6.2 OH&S objectives and planning to achieve them (title only)	
6.2.1 OH&S objectives	4.3.3 Objectives and programme(s)
6.2.2 Planning to achieve OH&S objectives	

Comparing ISO 45001 to OHSAS 18001 *continued*

ISO/DIS 45001	OHSAS 18001:2007
7 Support (title only)	
7.1 Resources	4.4.1 Resources, roles, responsibility, accountability and authority
7.2 Competence	
7.3 Awareness	4.4.2 Competence, training and awareness
7.4 Information and communication	4.4.3 Communication, participation and consultation (title only)
	4.4.3.1 Communication
7.5 Documented information (title only)	4.4.4 Documentation
7.5.1 General	4.4.5 Control of documents
7.5.2 Creating and updating	
7.5.3 Control of documented information	4.5.4 Control of records
8 Operation (title only)	4.4 Implementation and operation (title only)
8.1 Operational planning and control	4.4.6 Operational control
8.1.1 General	
★ 8.1.2 Hierarchy of controls	
★ 8.2 Management of change	4.3.1 Hazard identification, risk assessment and determining control
★ 8.3 Outsourcing	
★ 8.4 Procurement	4.4.6 Operational control
★ 8.5 Contractors	
8.6 Emergency preparedness and response	4.4.7 Emergency preparedness and response
★ 9 Performance evaluation (title only)	4.5 Checking (title only)
9.1 Monitoring, measurement, analysis and evaluation (title only)	4.5.1 Performance measurement and monitoring
9.1.1 General	
9.1.2 Evaluation of compliance with legal requirements and other requirements	4.5.2 Evaluation of compliance
9.2 Internal audit (title only)	
9.2.1 Internal audit objectives	4.5.5 Internal audit
★ 9.2.2 Internal audit process	
9.3 Management review	4.6 Management review
10 Improvement (title only)	4.5.3 Incident investigation, nonconformity, corrective action and preventive action
★ 10.1 Incident, nonconformity and corrective action	4.5.3.1 Incident investigation 4.5.3.2 Nonconformity, corrective action and preventive action
10.2 Continual improvement (title only)	4.1 General requirements
10.2.1 Continual improvement objectives	4.2 OH&S policy
10.2.2 Continual improvement process	4.6 Management review

We hope that this guide is helpful as your organization becomes familiar with ISO 45001.

Whether you are currently registered and would like to gain efficiency by consolidating your audits, or are looking to newly register, we have the tools and knowledge you need to succeed. NSF-ISR is a leader in management systems registrations and can provide the latest information to clients on updates to the standard. We work with clients to ensure they fully understand the requirements and timing of the standard changes.

NSF Services

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CONTACT US



NSF-ISR

World Headquarters

NSF International Strategic Registrations USA
789 N. Dixboro Rd., Ann Arbor, MI 48105

Toll Free: +1 888 NSF 9000 **T** +1 734 827 6800 **F** +1 734 827 6801
E information@nsf-isr.org **W** www.nsf-isr.org