

PACIFIC CERTIFICATIONS

ISO 45001:2018

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

IMPLEMENTATION GUIDE

A practical, clause-based guide for planning, implementing, evaluating and improving an OH&S management system.

PREVENT

Hazards | Risks | Incidents

PROTECT

Workers | Contractors | Visitors

IMPROVE

Performance | Learning | Culture

Independent certification body

Pacific Certifications provides independent assessment and certification services. This educational guide does not replace the official ISO standard, applicable legal requirements or competent occupational health and safety advice.

Edition 1.0 | June 2026

ABOUT THIS PUBLICATION

How to Use This Guide

This guide converts ISO 45001 requirements into a practical implementation sequence for organizations of all sizes and sectors. It can support new implementation, system improvement, integration with other management systems and preparation for independent certification.

Current edition

ISO 45001:2018 remains the published International Standard. Amendment 1:2024 adds climate-action considerations to Clauses 4.1 and 4.2. A revised edition is under development, so organizations should monitor formal ISO publications and transition information.

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Guide conventions

- OH&S means occupational health and safety.
- Workers include managerial and non-managerial persons performing work or work-related activities under the organization's control.

- Maintain documented information means keep a controlled document current; retain documented information means preserve evidence of results.

OCCUPATIONAL HEALTH AND SAFETY

1. Understanding ISO 45001

ISO 45001 provides a framework for preventing work-related injury and ill health, providing safe and healthy workplaces, eliminating hazards, reducing OH&S risks and continually improving OH&S performance. It applies to organizations of any size, sector or location.

What an effective OH&S management system should achieve

- Systematic identification of hazards and assessment of OH&S risks and opportunities.
- Legal and other requirements translated into operational controls and responsibilities.
- Meaningful consultation and participation of workers.
- Prevention of incidents, injuries and ill health through the hierarchy of controls.
- Preparedness for emergencies and changing operating conditions.
- Evidence-based monitoring, learning and continual improvement.

Potential organizational benefits

Benefit area	Practical result
Risk prevention	Reduced likelihood and severity of incidents, injuries and occupational ill health.
Legal control	Improved visibility of obligations, permits, inspections and compliance status.
Worker engagement	Better reporting, consultation, participation and ownership of safe work.
Operational reliability	Fewer disruptions, stronger contractor control and more consistent work methods.
Business confidence	Greater assurance for customers, regulators, employees and other interested parties.
Continual improvement	Structured use of data, investigations, reviews and corrective actions.

Certification is not the starting point

The management system should first be established, implemented and shown to be effective. Certification then provides independent confirmation that the system conforms to the applicable requirements.

SYSTEM THINKING

2. Core Concepts and the PDCA Cycle

Plan-Do-Check-Act

Stage	Application in ISO 45001
Plan	Understand context, workers and interested parties; identify hazards; assess risks and opportunities; establish objectives and controls.
Do	Provide resources and competence; communicate; consult workers; control operations, procurement, contractors, outsourcing and change.
Check	Monitor OH&S performance, evaluate compliance, investigate results, conduct internal assessments and management review.
Act	Correct nonconformities, learn from incidents, remove causes and continually improve the system and OH&S performance.

Hierarchy of controls

ISO 45001 requires organizations to use a preferred order when eliminating hazards and reducing OH&S risks. Higher-order controls should be considered before relying mainly on rules or personal protective equipment.

Priority	Control approach	Example
1	Eliminate the hazard	Remove work at height by designing equipment service points at ground level.
2	Substitute	Replace a hazardous chemical or noisy process with a safer alternative.
3	Engineering controls	Install guarding, ventilation, isolation, interlocks or mechanical lifting.
4	Administrative controls	Use procedures, permits, scheduling, supervision, signs and training.
5	Personal protective equipment	Provide suitable PPE as the final or supplementary layer of protection.

Risk-based thinking

Risk-based thinking should be embedded in planning and daily operations. The organization should address OH&S risks, other risks to the management system and opportunities that can improve safety culture, work design, participation or performance.

3. Practical Implementation Roadmap

Phase	Main activities	Typical outputs
1. Mobilize	Confirm leadership commitment, appoint process owners, define resources and communicate purpose.	Project plan, governance structure and communication plan.
2. Diagnose	Review current arrangements against ISO 45001 and legal requirements.	Gap analysis and prioritized action register.
3. Understand context	Identify issues, workers, interested parties, requirements, sites and scope.	Context register, interested-party register and scope statement.
4. Assess risks	Identify hazards, assess risks and opportunities, determine legal and other requirements.	Hazard register, risk assessments and compliance register.
5. Design controls	Establish policy, objectives, procedures, operational criteria and emergency arrangements.	Controlled documented information and action plans.
6. Implement	Train personnel, consult workers, control contractors and operate processes.	Competence records, consultation evidence and operating records.
7. Evaluate	Monitor performance, evaluate compliance, assess the system and review it with management.	KPI results, internal assessment reports and review minutes.
8. Improve and prepare	Close findings, test effectiveness and confirm readiness for certification.	Corrective actions and readiness review.

Implementation principle

Do not create paperwork merely to satisfy a clause. Use existing business processes wherever they are effective, then strengthen control, evidence, ownership and integration where gaps exist.

SCOPE, REFERENCES AND TERMS

4. Clauses 1-3: Foundation

Clause 1: Scope

The standard specifies requirements for an OH&S management system that enables an organization to provide safe and healthy workplaces, prevent work-related injury and ill health, and continually improve OH&S performance. It does not prescribe specific performance criteria or the design of a single system.

Clause 2: Normative references

ISO 45001 contains no normative references. Supporting guidance may be obtained from the ISO 45000 family and other recognized occupational health and safety resources, but the applicable certification criteria remain those of ISO 45001.

Clause 3: Terms and definitions

Term	Practical meaning
Hazard	A source with the potential to cause injury or ill health.
OH&S risk	Combination of the likelihood of a work-related hazardous event or exposure and the severity of injury or ill health.
OH&S opportunity	A circumstance or set of circumstances that can improve OH&S performance.
Incident	An occurrence arising out of, or in the course of, work that could or does result in injury or ill health.
Worker	A person performing work or work-related activities under the organization's control.
Workplace	A place under the organization's control where a person needs to be or go for work purposes.
Consultation	Seeking views before making a decision.
Participation	Involvement in decision-making.

PLAN

5. Clause 4: Context of the Organization

4.1 Internal and external issues

Determine issues relevant to the organization’s purpose that can affect the intended outcomes of the OH&S management system. Consider workforce characteristics, work organization, technologies, facilities, contractor arrangements, legal environment, industry risks, climate effects and business change.

Internal issues	External issues
Leadership culture and accountability	Legislation, regulator expectations and enforcement trends
Competence, staffing, fatigue and workload	Labor-market conditions and contractor availability
Equipment, facilities and maintenance condition	Technology changes and emerging hazards
Worker relations, reporting culture and consultation	Public health, climate and extreme-weather conditions
Processes, shifts, remote work and organizational change	Customer, community, insurer and supply-chain expectations

Climate action amendment

The organization must determine whether climate change is a relevant issue. Relevant interested parties may also have climate-related requirements. Consider heat stress, severe weather, air quality, disease patterns, emergency access and infrastructure resilience where applicable.

4.2 Workers and interested parties

Identify workers and other interested parties relevant to the OH&S management system, determine their relevant needs and expectations, and decide which become legal or other requirements. Give particular attention to non-managerial workers and people with limited influence over work design.

4.3 Scope of the OH&S management system

Define the organizational boundaries and applicability of the system. Consider external and internal issues, requirements, work-related activities, sites and the organization’s control or influence. The scope should be available as documented information and should not exclude activities that can affect OH&S performance merely to avoid responsibility.

4.4 OH&S management system

Establish, implement, maintain and continually improve the processes needed for the OH&S management system and their interactions. Integrate these processes into normal governance, planning, procurement, operations and change management.

LEAD AND ENGAGE

6. Clause 5: Leadership and Worker Participation

Leadership and commitment

- Accept accountability for preventing work-related injury and ill health and for providing safe and healthy workplaces.
- Ensure the policy and objectives are compatible with strategic direction.
- Integrate OH&S requirements into business processes and provide needed resources.
- Promote the process approach, risk-based thinking, reporting and continual improvement.
- Protect workers from reprisals when reporting incidents, hazards, risks and opportunities.
- Support relevant management roles and develop a positive OH&S culture.

OH&S policy

The policy should be appropriate to the organization, provide a framework for objectives and include commitments to safe and healthy working conditions, fulfilment of legal and other requirements, elimination of hazards, reduction of OH&S risks, continual improvement, and consultation and participation of workers.

Roles, responsibilities and authorities

Assign and communicate responsibilities for system conformity, performance reporting, hazard control, legal compliance, incident response and improvement. Top management retains overall accountability even where tasks are delegated.

Consultation and participation of workers

Consultation examples	Participation examples
Policy, objectives, communication methods and controls	Hazard identification and assessment of risks and opportunities
Needs and expectations of interested parties	Determining actions to eliminate hazards and reduce risks
Competence requirements and training needs	Incident investigation and corrective action
Monitoring priorities and assessment programs	Development of operational controls and emergency plans
Management review inputs	Selection of worker representatives and improvement initiatives

Remove barriers to participation

Provide time, training, information and accessible channels. Address language, literacy, disability, shift patterns, fear of reprisal, hierarchical pressure and contractor status that may restrict meaningful participation.

PLAN

7. Clause 6: Planning

Hazard identification

Use an ongoing and proactive process. Consider routine and non-routine activities, people with access to workplaces, human factors, work organization, past incidents, emergencies, design, changes, nearby activities and situations beyond direct control that can affect workers.

Hazard category	Examples
Physical	Noise, vibration, radiation, temperature, pressure, electricity and work at height.
Chemical	Dusts, fumes, vapors, gases, liquids and hazardous substances.
Biological	Viruses, bacteria, molds, animals, waste and contaminated materials.
Ergonomic	Manual handling, repetitive work, posture, workstation design and force.
Psychosocial	Workload, harassment, violence, isolation, role conflict, fatigue and low control.
Mechanical and process	Moving machinery, stored energy, vehicles, pressure systems and process loss of control.
Work environment	Access, lighting, housekeeping, confined spaces, traffic routes and severe weather.

Assessment of OH&S risks and other system risks

Define and maintain methods and criteria before performing assessments. Criteria should reflect likelihood, severity, exposure, existing controls, vulnerable persons, uncertainty and legal requirements. Assess both OH&S risks and risks that can affect the management system’s intended outcomes.

OH&S opportunities and other opportunities

- Adapt work, organization and environment to workers.
- Eliminate hazards and improve engineering controls.
- Improve consultation, participation, competence and reporting culture.
- Use technology, automation or redesign to reduce exposure.
- Integrate OH&S earlier into procurement, design and project planning.

Legal and other requirements

Determine and access current requirements, understand how they apply and incorporate them into the system. Retain documented information and update it when changes occur.

Objectives and plans

Objectives should be consistent with policy, measurable where practicable, monitored, communicated and updated. Plans should state what will be done, resources, responsible persons, completion dates, evaluation methods and integration into business processes.

DO

8. Clause 7: Support

Resources

Provide people, time, budget, facilities, technology, specialist support, monitoring equipment and emergency resources needed to establish, maintain and improve the system.

Competence

Role or activity	Possible competence evidence
Supervisors	Risk-control knowledge, leadership behavior, incident response and communication.
Equipment operators	Authorization, practical evaluation, refresher training and medical fitness where applicable.
Maintenance personnel	Isolation, permits, electrical or mechanical competence and safe restoration.
Contractor coordinators	Prequalification, induction, supervision and performance evaluation.
Emergency teams	Scenario exercises, equipment use, first aid and external coordination.
Internal assessors	ISO 45001 criteria, assessment techniques, impartiality and reporting.

Awareness

- The OH&S policy and relevant objectives.
- Contribution to system effectiveness and benefits of improved performance.
- Implications of not conforming with requirements.
- Incidents and investigation outcomes relevant to their work.
- Hazards, risks and controls relevant to their activities.
- The ability to remove themselves from imminent and serious danger without undue consequences.

Communication

Determine what, when, with whom and how to communicate internally and externally. Consider legal reporting, emergency contacts, contractors, visitors, worker representatives, regulators and neighboring communities. Communications should account for diversity and be consistent and reliable.

Documented information

Control documents and records for identification, format, review, approval, access, distribution, storage, protection, retention and disposal. Control external documents such as legislation, permits, safety data sheets, equipment manuals and client requirements.

DO

9. Clause 8: Operation

Operational planning and control

Plan, implement, control and maintain processes needed to meet OH&S requirements and implement actions from planning. Establish operating criteria, control work according to those criteria, coordinate multi-employer workplaces and adapt work to workers.

Eliminating hazards and reducing risks

Apply the hierarchy of controls systematically. Document the rationale where lower-order controls are necessary and verify that controls remain effective under actual operating conditions.

Management of change

- Assess planned temporary and permanent changes before implementation.
- Consider new products, services, processes, equipment, locations, work organization and staffing.
- Review changes to legal requirements, knowledge, technology and hazard information.
- Address unintended changes and mitigate adverse effects.

Procurement, contractors and outsourcing

Area	Expected controls
General procurement	Include OH&S specifications and verify purchased products and services conform before use.
Contractors	Coordinate hazards and controls, assess competence, communicate requirements, supervise performance and review incidents.
Outsourced functions	Ensure outsourced processes affecting the system are controlled and consistent with legal and ISO 45001 requirements.
Multi-employer workplaces	Coordinate responsibilities, emergency arrangements, permits, traffic, simultaneous operations and communication.

Emergency preparedness and response

- Identify credible emergency scenarios and affected persons.
- Plan first aid, rescue, evacuation, isolation, communication and external support.
- Provide equipment and competent responders.
- Test arrangements periodically where practicable and evaluate exercises.
- Review plans after tests, incidents and significant changes.
- Communicate relevant information to workers, contractors, visitors and emergency services.

CHECK

10. Clause 9: Performance Evaluation

Monitoring, measurement, analysis and evaluation

Determine what to monitor and measure, methods, criteria, frequency, responsibility and evaluation timing. Retain evidence and ensure monitoring equipment is calibrated or verified where applicable.

Performance area	Example indicators
Leading indicators	Hazard reports, inspections, action closure, training, preventive maintenance and worker participation.
Lagging indicators	Injuries, occupational illness, lost time, restricted work, near misses and property damage.
Exposure and health	Noise, dust, chemicals, ergonomics, health surveillance and fatigue indicators.
Control effectiveness	Guarding, permits, isolations, contractor compliance and emergency-test results.
Legal compliance	Inspections, licenses, statutory examinations, reporting and overdue obligations.
Objectives	Progress against milestones and measurable improvement in OH&S performance.

Evaluation of compliance

Establish a process and frequency for evaluating fulfilment of legal and other requirements. Take action where needed, maintain knowledge of compliance status and retain evidence of results.

Internal assessment

- Plan a program based on process importance, risks, changes and previous results.
- Define criteria and scope for each assessment.
- Select competent, objective assessors and avoid assessing one's own work where practicable.
- Report results to relevant managers and workers or representatives.
- Correct findings and retain evidence of the program and results.

Management review

Top management should review the system at planned intervals. Consider previous actions, context changes, interested parties, legal compliance, risks and opportunities, objectives, incidents, worker consultation, performance trends, assessment results, resources and improvement opportunities. Record decisions and actions.

ACT

11. Clause 10: Improvement

Incidents, nonconformities and corrective action

React promptly, control and correct the situation, deal with consequences and investigate with worker participation. Determine root causes and whether similar issues exist elsewhere, review assessments and controls, implement actions using the hierarchy of controls, evaluate effectiveness and update the system.

Investigation question	Purpose
What happened and what were the consequences?	Establish facts and immediate needs.
What conditions and actions were present?	Identify direct and contributing factors.
Why did controls fail or not exist?	Identify system weaknesses rather than stopping at worker error.
Could the issue occur elsewhere?	Extend learning across sites, shifts, equipment and processes.
What action will prevent recurrence?	Select effective actions, owners and deadlines.
How will effectiveness be verified?	Confirm sustained improvement after implementation.

Continual improvement

- Improve suitability, adequacy and effectiveness of the OH&S management system.
- Improve OH&S performance and promote a positive safety culture.
- Promote worker participation in improvement activities.
- Communicate relevant improvement results and retain evidence.
- Use trends, learning, innovation and good practice to strengthen prevention.

Avoid blame-based investigations

An investigation that ends with “worker error” rarely identifies the full cause. Examine design, workload, supervision, competence, communication, maintenance, procurement and organizational factors.

PRACTICAL RECORDS AND CONTROLS

12. Documented Information Toolkit

Core controlled information

Document or record	Typical purpose
OH&S scope and policy	Define boundaries, direction and commitments.
Context and interested-party register	Record relevant issues, workers, parties and requirements.
Hazard and risk register	Record hazards, assessments, controls, owners and review status.
Legal and other requirements register	Identify applicable obligations and evidence of applicability.
Objectives and action plans	Define targets, resources, responsibilities and evaluation.
Competence and awareness records	Demonstrate qualifications, training and effectiveness.
Operational controls and permits	Control significant and high-risk work.
Procurement and contractor records	Evidence selection, communication, coordination and performance.
Emergency plans and exercise records	Demonstrate preparedness and lessons learned.
Monitoring and health-surveillance records	Evidence performance and exposure control.
Compliance evaluations	Demonstrate periodic verification of obligations.
Internal assessment and management review	Evaluate conformity, effectiveness and strategic alignment.
Incident and corrective-action records	Demonstrate investigation, root cause, action and effectiveness.

Suggested document hierarchy

- Level 1: Policy, scope and management-system framework.
- Level 2: Process maps, procedures and responsibilities.
- Level 3: Work instructions, permits, checklists and emergency arrangements.
- Level 4: Records, reports, measurements, registers and evidence.

Control checklist

- Clear title, owner, approval and revision status.
- Available at the point of use and suitable for the intended audience.
- Protected from unintended change, loss or unauthorized access.

- External documents identified and kept current.
- Retention periods and secure disposal defined.

FINAL VERIFICATION

13. Certification Readiness Checklist

Readiness question	Status
Is the scope accurate, documented and consistent with actual activities?	Yes / No / Action
Have context, workers, interested parties and climate relevance been evaluated?	Yes / No / Action
Are hazards and OH&S risks assessed using defined criteria?	Yes / No / Action
Are legal and other requirements current and periodically evaluated?	Yes / No / Action
Is worker consultation and participation evident in decisions and records?	Yes / No / Action
Are objectives measurable where practicable and supported by plans?	Yes / No / Action
Are high-risk operations, contractors, outsourcing and changes controlled?	Yes / No / Action
Have emergency arrangements been tested and reviewed?	Yes / No / Action
Are monitoring results analyzed and acted upon?	Yes / No / Action
Has the full system been internally assessed?	Yes / No / Action
Has top management completed a management review?	Yes / No / Action
Are incidents and findings corrected with effectiveness verified?	Yes / No / Action

Typical independent certification pathway

Stage	Purpose
Application and scope review	Confirm organization profile, activities, sites, workforce, risks and requested scope.
Stage 1 assessment	Review system design, readiness, site conditions, key documented information and planning for Stage 2.
Stage 2 assessment	Evaluate implementation and effectiveness across relevant

	processes, sites, shifts and personnel.
Certification decision	Independent review of assessment evidence and closure of applicable findings.
Surveillance	Periodic evaluation of continuing conformity, performance and improvement.
Recertification	Comprehensive renewal evaluation before the certification cycle ends.

Timeline note

Implementation and certification duration varies according to organization size, complexity, number of sites, risk profile, legal environment, system maturity and readiness. Any timeline should be treated as tentative.

EXAMPLE ONLY

90-Day Implementation Planner

Period	Priority activities
Days 1-15	Leadership briefing, project governance, initial gap analysis and communication.
Days 16-30	Context, interested parties, scope, legal requirements and hazard-identification methodology.
Days 31-45	Risk assessments, policy, objectives, consultation arrangements and priority controls.
Days 46-60	Competence, communication, contractor control, procurement, change and emergency arrangements.
Days 61-75	Operate controls, collect evidence, monitor performance and evaluate compliance.
Days 76-85	Conduct internal assessment, investigate findings and implement corrective action.
Days 86-90	Complete management review, verify effectiveness and confirm certification readiness.

Common implementation mistakes

- Treating OH&S as the safety department's responsibility rather than a leadership and operational responsibility.
- Completing generic risk assessments that do not reflect actual tasks, workers, shifts and conditions.
- Consulting workers only after decisions have already been made.
- Relying on PPE and training without considering elimination, substitution or engineering controls.
- Failing to coordinate contractor and multi-employer workplace risks.
- Measuring only injury rates and overlooking leading indicators and occupational health.
- Closing corrective actions without verifying sustained effectiveness.

IMPLEMENTATION SUPPORT

Frequently Asked Questions

Is ISO 45001 only for high-risk industries?

No. It applies to organizations of all sizes and sectors. The system should be proportionate to the organization's activities, hazards and risks.

Is a safety manual mandatory?

The standard does not require a document with that title. The organization must maintain and retain the documented information required by ISO 45001 and needed for effective control.

Must every hazard have a numerical score?

No single scoring method is prescribed. The organization should define consistent methods and criteria appropriate to its context.

Does ISO 45001 require zero incidents?

The standard requires prevention, risk reduction and continual improvement. Certification does not guarantee that no incident will ever occur.

How are contractors covered?

Contractor activities and operations should be coordinated and controlled where they can affect OH&S performance.

Can ISO 45001 be integrated with ISO 9001 and ISO 14001?

Yes. The common management-system structure supports integrated context, leadership, planning, support, evaluation and improvement processes.

Does the climate amendment change the full standard?

No. Amendment 1:2024 adds climate-related considerations to Clauses 4.1 and 4.2.

What is Pacific Certifications' role?

Pacific Certifications provides independent assessment and certification services. As a certification body, it does not design or implement the client's management system.

INDEPENDENT CERTIFICATION

About Pacific Certifications

Pacific Certifications provides independent management-system assessment and certification services for organizations operating across a range of industries and locations. Certification activities are conducted through defined processes intended to support impartiality, competence and consistent certification decisions.

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