

Hazard Identification & Assessment

ISO 45001:2018

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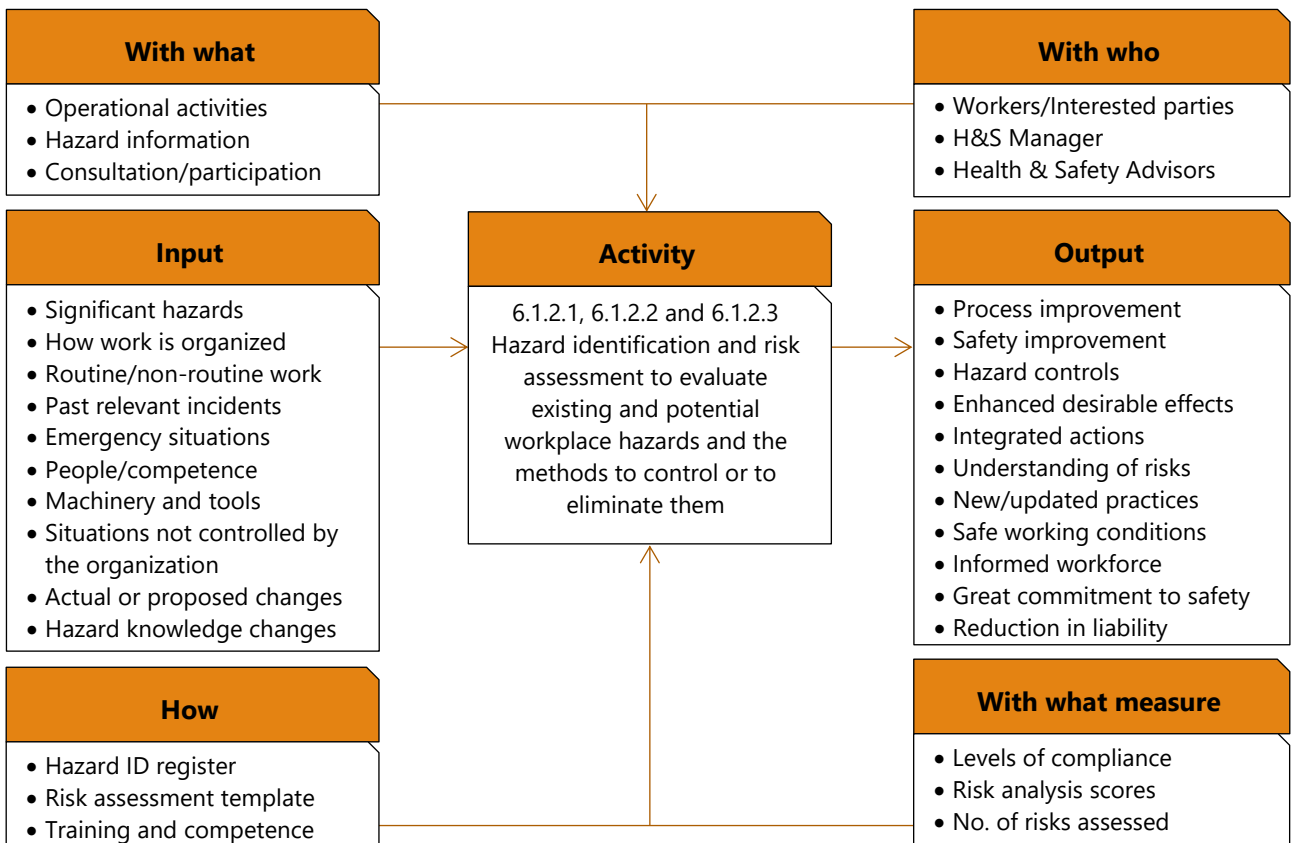
1 Procedure

1.1 Introduction & Purpose

This procedure aims to outline **your organization's** ongoing and proactive methodology for identifying operational hazards and assessing perceived risks to evaluate both existing and potential workplace hazards and determine the methods required to mitigate or eliminate the risks arising.

1.1.1 Process Overview

The process overview (turtle diagram) provides internal and external auditors, process owners, and participants an overview of the elements that are required by the hazard identification and assessment process:



1.1.2 References

Standard	Title	Description
ISO 45002-1:2018	Occupational health and safety	Guidance on managing occupational health
ISO 45001:2018	OH&S management systems	Requirements
ISO 45001:2018-03	Occupational health and safety	Amendment 1 Climate action changes 2024-02
ISO 19011:2018	Auditing management systems	Guidelines for auditing

1.1.3 Terms & Definitions

Term	Definition
Hazard	A source of potential harm or a situation with a potential to cause loss or harm
Hazard Identification	The process of examining each work area and task to identify hazards inherent to work
Hazard ID Register	A formal record that captures all known hazards and potential risks to be assessed
Worksite inspection	Regular inspection of work areas to assist with the monitoring/identification of hazards
Risk Assessment	Determining the risk of a hazard in combination with its likelihood and severity

12. Can contact be made with hot, toxic, or caustic substances?
13. Are there dust, fumes, mists, or vapors in the air?

To ensure the hazard identification process is thorough, the [Health & Safety Advisor](#) and the [Supervisors](#) ensure that risks are identified taking account of (this is not a complete list):

1. Routine and non-routine activities;
2. Effectiveness of existing controls;
3. Activities of all persons having access to the workplace, including contractors and visitors;
4. Human behavior, capabilities, and other human factors;
5. Identified hazards originating outside the workplace capable of adversely affecting the health and safety of persons under the control of the organization within the workplace;
6. Hazards in the vicinity of the workplace by work-related activities under our control;
7. Infrastructure, equipment, and materials at the workplace provided by our organization or others;
8. Changes or proposed changes in the organization, its activities, or materials;
9. Modifications to the SMS or temporary changes that impact on operations, processes, and activities;
10. Applicable legal obligations relating to risk assessment and implementation of necessary controls;
11. Design of work areas, processes, installations, machinery/equipment;
12. Design of operating procedures and work organization, including adaptation to human capabilities;
13. Information from employee consultations, review, and improvement activities in the workplace;
14. Information on best practices;
15. Communications from workers and other interested parties;
16. The nature of hazards and the magnitude of the risk.

All business activities must be assessed to ensure that any changes to processes and operations do not result in adverse health and safety hazards. When [your organization](#) lacks control or influence over the hazard or risk, its details are escalated to the [Risk Register](#) for [Top management](#) action.

1.4.3.5 Prioritize the Hazards

Formulas in the [Hazard Identification Register](#) will automatically rate the hazards according to the severity and likelihood scores. The register is maintained by the [H&S Manager](#) and reported to [Top management](#) every month. Resulting hazards and risks rated as '**Moderate**' and '**Major**' are considered significant and prioritized for detailed risk assessment to determine and implement appropriate control measures.

1.4.4 Assessing Risk

1.4.4.1 General

[Your organization](#) uses the [H&S Risk Assessment](#) form as a qualitative risk assessment (QRA) consisting of qualitative likelihood (probability) and severity (impact) scales undertaken to ensure a detailed understanding of the effect of each hazard and risk that is rated as '**Moderate**' and '**Major**' within the [Hazard Identification Register](#).

Risk assessments are undertaken with varying degrees of detail depending on the type of hazard and the information, data, and resources available. It can be as simple as a discussion with your workers or involve specific risk analysis tools and techniques developed for specific risks or recommended by safety professionals.

Assessing the severity of a health and safety risk drives management attention and supports planning for mitigation. It is recommended that risk assessments are conducted by competent personnel involving the workers who are or will be directly involved in the process. A risk assessment is done when:

- 9. Fire Risk Assessment
- 10. Ergonomic Risk Assessment
- 11. Legionella Risk Assessment
- 12. Work at Height Risk Assessment

1.4.4.2 Likelihood (S1)

Score	Likelihood	Likelihood Rating		
		Description	Percentage	Probability
1	Remote	Could occur only in exceptional circumstances	<0.1%	1 in 1,000
2	Unlikely	Could occur at some time but only in unusual circumstances	1%	1 in 100
3	Likely	Not expected to occur under normal circumstances	10%	1 in 10
4	Highly Likely	Will probably occur in most circumstances	50%	1 in 2
5	Almost Certain	Expected to occur in most circumstances	>95%	1 in 1

1.4.4.3 Severity (S2)

Score	Severity	Severity of Risk (Degree of Harm)
1	Negligible	Single minor injury to one person. Minor reversible injury of minor concern. First aid or no treatment is required. No lost time. Record in the Accident Book, review risk assessment, training procedures, and processes. Returned to full duties.
2	Minor	Medically treated injury. Reversible injury. Requires treatment but does not lead to restricted duties. May require the use of Emergency Procedures, First Aiders, etc. Inability to complete rest of shift or modified duties.
3	Serious	Severe but reversible health effects, lost time, over a 3-day reportable injury. Reversible injury or moderate irreversible impairment. Statutory RIDDOR reporting is required. Internal incident investigation. H&S informed. As a result, one or more entire shifts were missed.
4	Major	Severe irreversible damage to one or more persons. Severe and irreversible health effects or disabling illness. Major injury resulting in long-term incapacity/semi-permanent injury, hospital >= 3-day absence. Internal incident investigation is required. H&S informed.
5	Catastrophic	Life-threatening or permanently disabling illness. Single or multiple fatalities or permanent disabilities. Facilities or equipment destroyed. Loss of permit to operate. Legal investigation is required. H&S informed.

1.4.4.4 Level of Risk (S3)

Likelihood of Occurrence	Severity of Risk				
	Negligible	Minor	Serious	Major	Catastrophic
Remote	1	2	3	4	5
Unlikely	2	4	6	8	10
Likely	3	6	9	12	15
Highly likely	4	8	12	16	20
Almost certain	5	10	15	20	25

1.4.4.5 Response (S4)

Score	Risk Rating	Level of Risk (LoR)	Level of Action
1 to 4	Minor	<p>This LoR is generally considered sufficiently low, insignificant, and adequately controlled. Continue to review and reduce the risks wherever they are reasonably practicable, as per cost and legal requirements.</p> <p>Monitor risk controls to ensure that they are maintained at their present level or at a lower level of risk that current day-to-day work practices can effectively manage.</p> <p>Ongoing monitoring and management are required by workers and line supervisors using routine procedures.</p>	<p>Manage by routine procedures at the operational level.</p> <p>Supervisor review required.</p>