

Health & Safety Management System

Hazard Identification & Risk Assessment Procedure

Table of Contents

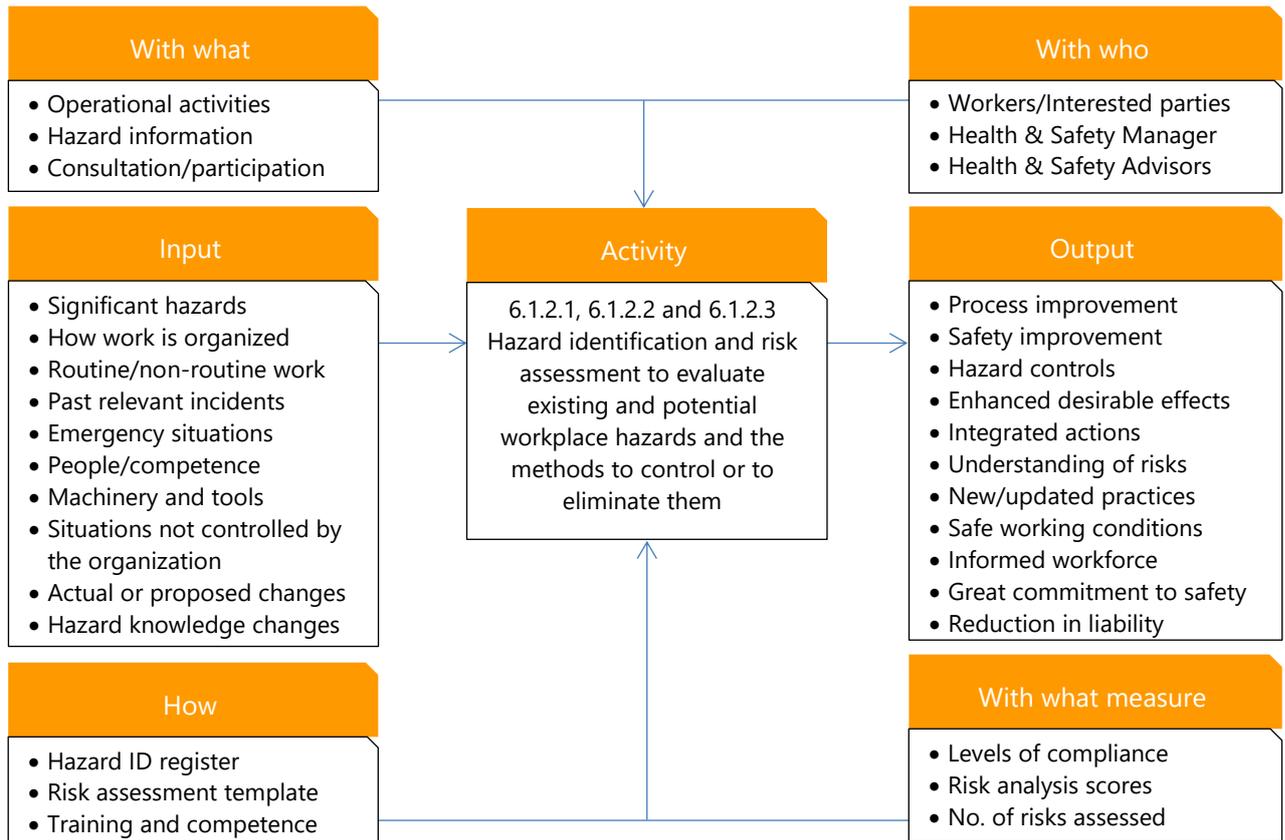
1	HAZARD IDENTIFICATION & RISK ASSESSMENT.....	3
1.1	INTRODUCTION & PURPOSE	3
1.1.1	Process Turtle Diagram.....	3
1.1.2	References.....	3
1.1.3	Terms & Definitions	3
1.2	APPLICATION & SCOPE	4
1.3	RESPONSIBILITIES.....	4
1.4	IDENTIFICATION OF HAZARDS & ASSESSMENT OF RISKS.....	5
1.4.1	Hazard Identification Methodology	5
1.4.2	Hazard Identification Techniques	5
1.4.2.1	Hazard Identification Register.....	6
1.4.2.2	Job Safety Analysis (JSA).....	6
1.4.2.3	Workplace Inspections	7
1.4.2.4	Workplace Monitoring & Sampling.....	9
1.4.2.5	Safety Audits	9
1.4.2.6	Change Management.....	10
1.4.2.7	Hazard Identification Study (HAZID)	10
1.4.2.8	Hazard Operability Studies (HAZOP).....	11
1.4.2.9	Failure Mode Effects & Critical Analysis (FMECA)	11
1.4.2.10	Fault Tree Analysis (FTA).....	13
1.4.3	Hazard Identification Process.....	14
1.4.3.1	Analyze a Task, Operation or Process	15
1.4.3.2	Observe the Basic Steps.....	16
1.4.3.3	List the Potential Hazards.....	16
1.4.3.4	Prioritize the Hazards.....	18
1.4.4	Qualitative Risk Assessment Process.....	18
1.4.4.1	Determining the Likelihood (S1).....	19
1.4.4.2	Determining the Severity (S2).....	20
1.4.4.3	Determining the Level of Risk (S3)	20
1.4.4.4	Determining the Response (S4).....	21
1.4.5	Risk Control & Mitigation	21
1.4.6	Reviewing & Reporting.....	22
1.4.7	Performance Monitoring.....	23
1.4.8	Escalation.....	23
1.5	ASSESSMENT OF OCCUPATIONAL HEALTH RISKS & OPPORTUNITIES	23
1.6	TRAINING	24
1.7	COMMUNICATION & PARTICIPATION.....	24
1.8	FORMS & RECORDS	24

1 Hazard Identification & Risk Assessment

1.1 Introduction & Purpose

The purpose of this procedure is to outline [your organization's](#) ongoing and proactive methodology for the identification of operational hazards and the assessment of perceived risks to evaluate both existing and potential workplace hazards, and to determine the methods required to mitigate or eliminate the risks arising.

1.1.1 Process Turtle Diagram



1.1.2 References

Standard	Title	ISO Clauses	Manual Sections
BS EN ISO 45001	OH&S management system requirements	6.1.2	6.1.2
BS EN ISO 45002-1	Guidance on managing occupational health	6.2.1	

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 the 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 and identification of hazards
Risk Assessment	Determining the risk of a hazard in combination with its likelihood and severity
Risk Control	Implementation of tools and techniques that mitigate or eliminate the risk

1.4 Identification of Hazards & Assessment of Risks

1.4.1 Hazard Identification Methodology

Hazards exist at all levels in the organization and are detectable through many sources including reporting systems, inspections, audits, brainstorming sessions and expert judgement. Our goal is to proactively identify hazards and define their key characteristics before they lead to accidents, incidents or other safety-related occurrences. The two main methodologies by which we identify hazards associated with our activities are:

1. **Lagging/Reactive.** This methodology involves analysis of past outcomes or events. Hazards are identified through an investigation of safety occurrences. Incidents and accidents are an indication of system deficiencies and therefore used to determine which hazard(s) contributed to the event. Hazards are also identified through safety data analysis to identify adverse trends and make predictions about emerging hazards, etc. This information is retained in the *Hazard Identification Register*.
2. **Leading/Proactive.** This methodology involves collecting safety data of lower consequence events or process performance and analysing the safety information or frequency of occurrence to determine if a hazard could lead to an accident or incident.

The safety information for proactive hazard identification primarily comes from job safety analysis reports, active safety monitoring, workplace inspections, observation, discussion, safety reporting systems and via the safety assurance function.

Identified hazards and their potential consequences are documented and feed into the risk assessment processes. The hazard identification process considers all possible hazards that may exist within the scope of our operations and activities, including interfaces with other systems, both within and external to our organization.

1.4.2 Hazard Identification Techniques

Your organization's proactive hazard identification techniques, include inputs from job safety analysis, checklists, hazard surveys, workplace inspections and audits. Other examples of methods we adopt to identify health and safety hazards before an incident occurs include:

1. Conducting pre-start discussions on the work to be carried out;
2. Encouraging workers to recognise and report hazards while performing work;
3. Carrying out safety inspections and audits of the workplace and work procedures;
4. Conducting job safety analyses (or similar task evaluation processes);
5. Monitoring, measuring and testing the working environment;
6. Analysing proposed new or modified plant, material, process or structure;
7. Conducting hazard (or risk) surveys;
8. Reviewing product information, e.g. safety data sheets, operating manuals;
9. Researching publicly available data on hazards, e.g. media articles, industry or safety regulator alerts;
10. Looking at past incident and near-miss reports.

No single method of hazard identification and evaluation will suit every company or situation. Simple methods, utilizing the experience of loss prevention and operating personnel, work well in a broad range of operations and activities. When new, modified, or complex processes and equipment are introduced, more formal methods of hazard evaluation and risk analysis may be required.

or other workers when undertaking this task. The following table offers a guide to determining the frequency; however, an assessment of each individual work area needs to occur to determine the frequency.

Area	Level of risk	No of Inspections
Hazardous substances and dangerous goods storage areas	High	Monthly
Workshops including maintenance workshops	High	Monthly
Manufacturing areas	High	Monthly
Warehousing	Medium	3 Monthly
Retail areas	Medium	3 Monthly
Café/Canteen	Medium	3 Monthly
Administration/Offices	Low	6 Monthly
Compounds/Yards	Low	6 Monthly
External landscaping and car parks	Low	6 Monthly

The workplace inspection starts with a review of the action points from the previous inspection. Any unresolved issues are noted in the comments/observation section of the *Workplace Inspection Form* for action or resolution. The workplace inspection may include observations and discussions with relevant workers, including operators, managers and maintenance personnel.

For best results a [Line Manager/Supervisor](#) and at least one other worker should be involved in participation in each workplace inspection, in order to:

1. Review the workplace inspection form/checklist to be used;
2. Conduct workplace inspections by walking around the work environment;
3. Identify any physical hazards and areas of noncompliance against the inspection checklist;
4. Record all findings, providing specific comments, ensuring form is signed and dated and includes personnel conducting the inspections;
5. Ensure responsibilities, priorities and time frames are listed when determining corrective action.

Particular note should be taken of the following;

1. Slip and trip hazards;
2. Relevance and adequacy of signs with a health and safety focus;
3. Condition of safety signage;
4. General housekeeping;
5. Damaged equipment, plant and building;
6. Trapping/crushing/entanglement/severing hazards;
7. Lighting and noise;
8. Emergency equipment, inspection of testing and locking off;
9. Storage practices;
10. Labelling and use of hazardous substances;
11. Access and egress.

If a hazard or a non-conformance is identified corrective action must be implemented. All corrective action must have a person or persons allocated responsibility with time frames and priority. Priority is determined by the level of risk posed by the hazard. The following gives an indication of time frames required for each priority: