

HAZARD IDENTIFICATION & RISK ASSESSMENT ROCEDURE





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1.0 PURPOSE & SCOPE

- 1.1 To ensure that there is a formal process for hazard identification, risk assessment and control to effectively manage workplace and safety hazards, Identify Hazards,
- 1.2 Assess Risks , Control Risks, Reviewing & Monitoring, regularly review the effectiveness of your hazard assessment and control measures

2.0 **DEFINITIONS**

| Hazard Identification | This is the process of examining each work area and work task for the purpose of identifying all the hazards which are "inherent in the job". Work areas include but are not limited to machine workshops, laboratories, office areas, agricultural and horticultural environments, stores and transport, maintenance and grounds, reprographics, and lecture theatres and teaching spaces. Tasks can include (but may not be limited to) using screen based equipment, audio and visual equipment, industrial equipment, hazardous substances and/or teaching/dealing with people, driving a vehicle, dealing with emergency situations, construction. This process is about finding what could cause harm in work task or area. |
|--------------------------|--|
| Risk | The likelihood, or possibility, that harm (injury, illness, death, damage etc.) may occur from exposure to a hazard. |
| Risk Assessment | Is defined as the process of assessing the risks associated with each of the hazards identified so the nature of the risk can be understood. This includes the nature of the harm that may result from the hazard, the severity of that harm and the likelihood of this occurring. |
| Risk Control | Taking actions to eliminate health and safety risks so far as is reasonably practicable. Where risks cannot be eliminated, then implementation of control measures is required, to minimize risks so far as is reasonably practicable. A hierarchy of controls has been developed and is described below to assist in selection of the most appropriate risk control measure/s. |
| Monitoring and Review | This involves ongoing monitoring of the hazards identified, risks assessed and risk control processes and reviewing them to make sure they are working effectively. |
| Emergency | An abnormal and dangerous situation requiring prompt action to control, correct the situation and return to a normal condition. Types of Emergencies shall include: 1. Fire 2. Medical 3. Chemical Spills 4. Vehicle Incident 5. Severe Weather 6. Damage to Structures 7. Civil Disturbance. |
| Emergency Coordinator | The person in charge of the Bright Holder Co. site during any emergency. This may be the Designated Official or someone appointed by the Designated Official to fulfill the functions of the position. |
| Evacuation | Protective action taken to prevent and or remove Bright Holder Co. site workers, subcontractors employees and the general public from the affected area. |
| Fire Emergency | An emergency situation involving uncontrolled flames, smoke, or smell of smoke. |



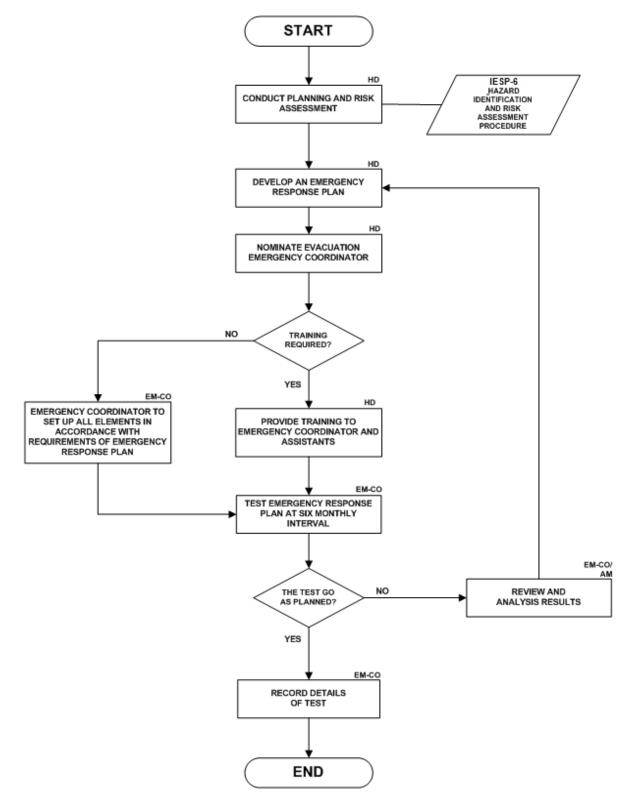


| Incident | An occurrence that results in damage, injury, illness to people,plant and equipment, property and or the environment. This include a near miss situation at the workplace. |
|----------------------|--|
| Medical Emergency | A situation requiring immediate medical assistance. |
| PCBU | A PCBU is the legal entity operating a business or undertaking. A PCBU may be an individual person or an organisation conducting a business or undertaking. |





3.0 FLOW CHART







4.0 PROCEDURAL TEXT

To ensure that there is a formal process for hazard identification, risk assessment and control to effectively manage workplace and safety hazards of Bright Holder Company.

A Person Conducting A Business or Undertaking (PCBU) has obligations under the Work Health and Safety as well as the Work Health and Safety Regulation ,to manage risks to health and safety so far as is reasonably practicable. A risk management approach involves identification and assessment of risks followed by elimination of risks in the first instance or where this is not practicable, minimizing those risks so far as reasonably practicable.

The risk management approach is important for three main reasons:

- So that the duty of care to its workers, customers, contractors, visitors and others that work or learn can be met, as part of the legislative health and safety requirements.
- Out of concern for the health and safety of workers, contractors, visitors and others.
- It makes good business sense and is cost effective.

A key requirement of managing risks in the workplace is consulting with workers affected by a health and safety matter. Workers should be involved in the hazard identification, risk assessment and risk control processes. Where workers are represented by a Health and Safety Representative (HSR), this HSR must be involved in the consultation process. The legislation also requires that where several PCBUs have duties for a health and safety matter, these PCBUs must consult, cooperate and coordinate their risk management activities to ensure effective management of the health and safety matter.

Workplace hazard identification, assessment and control is an on-going process. Should be undertaken at various times, including:

- If it has not been done before.
- When a hazard has been identified
- When a change to the workplace may introduce or change a hazard. Such as when changes occur to the work equipment, practices, procedures or environment.
- As part of responding to a workplace incident, even where an injury has not occurred.
- Where new information about a risk becomes available or concerns about a risk are raised by workers
- At regularly scheduled times appropriate to the workplace.

It is often more effective and easy to eliminate hazards if risk management approaches used at the planning and design stages for products, processes and places for work.

The following procedure for risk management (involving hazard identification, risk assessment and control) is a practical guide for helping make all Bright Holder Company workplaces safer for workers, contractors, and visitors. It will help both management and workers, through consultation, to comply with regulations. These regulations require PCBUs to identify, assess and control hazards in the workplace with the aim of eliminating hazards or minimizing hazards, do far as reasonably practicable. Recording risk management activities, including risk assessments and consultation processes is required.

These procedures will assist in:

- Finding hazards in Bright Holder workplaces.
- Assessing the risks that may result from these hazards.
- Determining control measures to eliminate or minimize the level of the risks.
- Monitoring and reviewing the effectiveness of control measures.





4.1. Responsibilities

Effective risk management requires the commitment from managers and Officer as well as the input and involvement of workers.

It is the responsibility of all managers and supervisors to ensure that this policy is fully implemented in their area(s) of control and to consult with workers as part of undertaking the hazard identification, risk assessment and control process. It is the responsibility of workers to cooperate and comply with this policy. This includes providing effective and constructive information and feedback to aid the risk management process.

Officers have a responsibility to ensure that the areas under their control are complying with legislative requirements. This includes the Officer understanding the hazards and risks associated with their operations and ensuring that appropriate resources and processes are in place to eliminate or minimize these risks.

a. Workers:

- Take immediate actions or start the process to eliminate or control a hazard when identified.
- Report Hazards immediately to their immediate supervision and discuss appropriate control measures.
- Complete **PART A** of the Hazard Report Form (Appendix A) and forward form to Supervision.

b. Supervision:

- Ensure all personnel under their control are trained and competent in identifying and reporting hazards by ensuring they have undertaken ongoing adequate training.
- As with all workers, report any Hazard that might impact on the health and safety of workers, plant or the environment.
- Investigate the Hazard and complete the Hazard Investigation found section in PART B of the Hazard Report Form (Appendix A).

c. Supervision continued:

- Assess whether Hazards can be eliminated immediately or require appropriate control measures.
- Assess the Hazards severity using the Risk Assessment Matrix (Appendix B) to identify the risk level and complete the Hazard risk rating section in PART B of the Hazard Report Form.
- Using the "Hierarchy of Control", engage in consultation with Health and Safety Representatives (HSRs) and workgroups to identify appropriate control measures.
- Complete the action taken to implement controls and Hierarchy of Controls section in PART B of the Hazard Report Form.
- Ensure PART B of the Hazard Report Form is fully completed and signed off only when totally satisfied that the Hazard is either eliminated or adequately controlled.
- Provide feedback to the worker who raised the Hazard Report Form.
- Review and monitor the effectiveness of the control measures by ensuring the implementation of ongoing routine workplace Inspections and the continual use of this procedure within their area of responsibility.

d. Health and Safety Representatives:

(Only where one has been elected by the workgroup)

- As with all workers report any Hazard that might well impact on the safety of workers or the environment.
- Assist workers in filling out PART A of the Hazard Report Form (Appendix A).
- Assist Supervision in defining appropriate control measures in PART B of the Form.
- Ensure all Hazard Reports are raised and discussed at the monthly Work Health and Safety meetings / toolbox or pre-start meetings.





e. HSE Coordinator:

- Verifies Hazard has been controlled and signs off on the Hazard Report Form.
- Maintains a Hazard Report Register.
- Provides statistical performance indicator of Hazard control closure.
- Retains Hazard Report Forms for a minimum period of 3 years.

f. Managers:

- Ensure all personnel under their control are trained and competent in identifying and reporting Hazards by ensuring they have undertaken ongoing adequate training.
- As with all workers, report any Hazard that might impact on the health and safety of workers, plant or the environment.
- Ensure adequate resources are made available to control hazards which have been identified and assessed, within their own key area of responsibility.
- Regularly review and monitor key performance indicators and risk management strategies related to Hazard management.
- Ensure implementation and continual use of this procedure within their area of responsibility.
- Ensure the Hazard controls are suitable and effective.
- Ensure the Hazard Report Form (Appendix A) is fully completed and signed off, and is forwarded to (Document controller) for record keeping.

g. Work Health and Safety Committee)

- Review Hazard Report completion rates as a key performance indicator.
- Recommend and instigate improvement programs if failures are identified within the system.





5.0 Risk Assessment Procedure

The risk assessment procedure can optimally be illustrated in the following way.



Step 1: Identify Hazards

Legislation requires that PCBUs, in consultation with workers identify all potentially hazardous things or situations that may cause harm. In general, hazards are likely to be found in the following;

- Physical work environment,
- Equipment, materials or substances used,
- Work tasks and how they are performed,
 Work design and management

In order to identify hazards the following are recommended:

- (i) Past incidents/accidents to be examined to see what happened and whether the incident/accident could occur again.
- (ii) Employees to be consulted to find out what they consider as safety issues, i.e. ask workers about hazards near misses they have encountered as part of their work. Sometimes a survey or questionnaire can assist workers to provide information about workplace hazards.
- (iii) Work areas or work sites be inspected or examined to find out what is happening now. Identified hazards should be documented to allow further action. The work environment, tool and equipment as well as tasks and procedures should be examined for risks.
- (iv) Information about equipment (e.g. plant, operating instructions) and Material Safety Data Sheets to be reviewed to determine relevant safety precautions.
- (v) Welcome creative thinking about what could go wrong takes place, i.e. what hazardous event could take place here?

At Bright Holder Company, any hazard which is identified by this process should be recorded on the Risk Assessment.

Step 2: Assess Risks

Risk assessment involves considering the possible results of someone being exposed to a hazard and the likelihood of this occurring. A risk assessment assists in determining:

• How severe a risk is





- Whether existing control measures are effective
- What action should be taken to control a risk
- How urgently action needs to be taken.

A risk assessment should include:

- i. Identify factors that may be contributing to the risk,
- ii. Review health and safety information that is reasonably available from an authoritative source and is Relevant to the particular hazard,
- iii. Evaluation of how severe the harm could be. This includes looking at the types of injuries/illnesses/harm/damage that can result from the hazard, the number of people exposed, possible chain effects from exposure to this hazard.
- iv. Evaluation of how a hazard may cause harm. This includes examining how work is completed, whether existing control measures are in place and whether they control the harm, looking at infrequent/abnormal situations as well as standard operating situations. A chain of events related to a risk may need to be considered.
- v. Determining the likelihood of harm occurring. The level of risk will increase as the likelihood of harm and its severity increases. The likelihood of harm occurring may be affected by how often the task is completed, in what conditions, how many people are exposed to the hazard and for what duration.
- vi. Identify the actions necessary to eliminate or control the risk; and
- vii. Identify records that it is necessary to keep to ensure that the risks are eliminated or controlled.

Other risk factors should also be identified as they may contribute to the risk: including

- a. The work premises and the working environment, including their layout and condition,
- b. The capability, skill, experience and age of people ordinarily undertaking work,
- c. The systems of work being used; and
- d. The range of reasonably foreseeable conditions.

The process of assessing the risk is undertaken by reviewing any available information about the hazard (e.g. legislation, Standards, Industry Code of Practice or guidance material about the hazard) and by using your personal work experience about what sort harm the hazard could create and how likely this would be to happen. When determining how likely it is that a person could be exposed to a hazard, consideration needs to be given to these "exposure factors":

- 1. Whether there are any other risk factors that increase the likelihood of exposure?
- 2. How often the person is exposed (frequency)?
- 3. Or how long is the person exposed (duration)?
- 4. How many people are exposed?
- 5. The likely dose to which the person is exposed?
- 6. Any legislative or recommended exposure levels required by statutory authorities





We Require:

- 1. Identified hazards are placed on Assessment & Control of Risk form.
- 2. A **Risk Category Table** (below) is then used to categories the type of risk.
- 3. The **Risk Ranking Matrix** is used to assess the likelihood and the severity or consequences of each hazard and to give it a "risk rating".

Risk Rating Matrix

| | Likelihood (L) | | | | |
|------------------|----------------|----------|----------|-------------|------------------|
| Consequences (C) | Rare | Unlikely | Possible | Very Likely | Certain to Occur |
| Catastrophic | moderate | moderate | high | critical | critical |
| Major | Low | moderate | moderate | high | critical |
| Moderate | Low | moderate | moderate | moderate | high |
| Minor | very low | low | moderate | moderate | moderate |
| Insignificant | very low | very low | low | low | moderate |

| Consequences (C) | How Severely Could Someone be Hurt? | |
|--|---|--|
| Catastrophic | Death or permanent disability | |
| Major | Serious injury, hospital treatment required | |
| Moderate | Injury requiring medical treatment and some lost time | |
| Minor | Minor injury, first aid only required | |
| Insignificant Injuries requiring no treatment or first aid | | |
| Likelihood (L) How Likely are the Consequences? | | |
| Certain to Occur | Expected to occur in most circumstances | |
| Very Likely | Will probably occur in most circumstances | |
| Possible | Might occur occasionally | |
| Unlikely | Could hap pen some time | |
| Rare | May happen only in exceptional circumstances | |





Actions Required

| Risk Level Rating | Required Action | |
|-------------------|---|--|
| Critical | Immediate action needed . Access to the hazard should be restricted until the risk can be lowered, action may be required to lower the risk level and then medium and long term plans to control the risk to as low as reasonably practicable using the Hierarchy of Controls. | |
| High | Action needed quickly (within 1-2 days). The task should not proceed unless the risk is assessed and control options selected based on the Hierarchy of Controls. | |
| Moderate | Action required this week to eliminate or minimize the risk using the Hierarchy of Controls. | |
| Low | Action required within a reasonable timeframe (2-4 weeks) to eliminate or minimize the risk using the Hierarchy of Controls. | |
| Very Low | Risk to be eliminated or lowered when possible using the Hierarchy of Controls. | |

Step 3: Controlling Risks

Once a risk rating is determined, each hazard must have its existing risk control measures evaluated using the Evaluation of Control Effectiveness Table. This allows for determination of any additional requirement necessary.

| Well Desi | gned Control ? | Effectively Implemented ? | |
|-----------|-------------------|---------------------------|---------------|
| 3 | Needs improvement | 3 | Deficient (b) |
| 2 | Adequate | 2 | Marginal |
| 1 | Strong | 1 | Effective |

Evaluation of Control Effectiveness Table

Implement additional risk controls

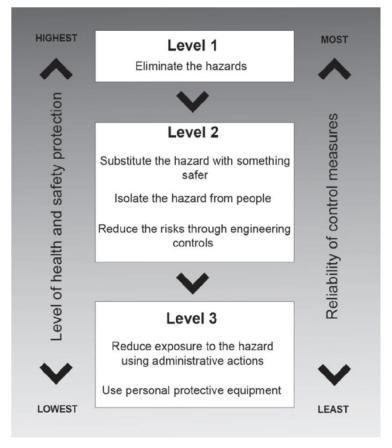
Having identified the hazards in your workplace, assessed their risks and reviewed the existing controls, all hazards must be managed before people are hurt, become ill or there is damage to plant, property or the environment.

The management of risks in the workplace requires eliminating risks so far as reasonably practicable in the first instance. Where elimination is not possible, then risks should be minimized, so far as reasonably practicable.

All hazards that have been assessed should be dealt with in order of priority. The most effective control option/s should be selected to eliminate or minimize risks. The Hierarchy of Controls (see diagram below) ranks control options from highest level of protection and reliability to lowest. This should be used to determine the most effective control/s.

Hierarchy of Controls





Level 1 Control Measures – Eliminate the Hazard

The most effective control measures eliminate the hazard and associated risks. This can be achieved through removing the hazard or selecting alternate products or equipment to eliminate the risk. If a hazard cannot be eliminated then risks can be minimized by lower control measures

Level 2 Control Measures

These are used to minimize the risks and involve on or a combination of the following;

- (i) <u>Substitute the hazard</u>: substitute a substance, method or material to reduce the risk or the hazard
- (ii) <u>Isolate the hazard</u>: <u>separate</u> the hazard from the workplace or people, For example;
 - a. Chemical store room, or a laboratory kept locked except to an authorized person.
 - b. Lock out procedures on faulty equipment.
 - C. Appropriate guarding for machinery.

(iii)<u>Use engineering controls</u>: <u>modify</u> existing machinery or plant or purchase different machinery or plant to provide a physical solution. For example;

- a. Trolleys, hoists or cranes.
- b. Guard rails.

Level 3 Control Measures

These are control options which should be considered last as they do not control the source of the hazard but rely on human behavior or supervision and are therefore less effective. They include;

 (i) <u>Administrative Procedures</u>: develop work methods or procedures to reduce the conditions of risk, for example:





- a. Written Safe Operating Procedures
- b. Job rotation to restrict hours worked on difficult jobs.
- **C.** Staff trained in the correct operating procedures.

(ii) <u>Use Personal Protective Equipment (PPE) and training in its use</u>:

Offer the lowest level of protection and should only be used as a last resort to deal with the hazard, where the hazard cannot be removed or reduced by any other means, for example:

- **a.** Handling of chemicals gloves, safety glasses, aprons.
- b. Protecting eyes from flying particles.
- C. Protecting feet safety boots.

Consultation with workers is required in the selection and implementation of control measure in the workplace.

Controls may need to be trialed to determine effectiveness and workers should be involved in the feedback process.

Each measure must have a designated person and date assigned for the implementation of controls. This ensures that all required safety measures will be completed and documented.

Step 4: Monitor and Review

Hazard identification, risk assessment and control is an on-going process. Therefore, regularly review the effectiveness of your hazard assessment and control measures. Make sure that you undertake a hazard and risk assessment when there is a change to the workplace including when work systems, tools, machinery or equipment change. Provide additional supervision when new employees with reduced skill levels or knowledge are introduced to the workplace. The effectiveness of control measures can be checked through regular reviews as well as consultation with workers.

Maintaining records of the risk management process assists when undertaking subsequent reviews or risk assessments as it demonstrates decision making processes and informs how controls were intended to be implemented.