Environmental Management Plan

Document Number:	**HSEPL05**
Document Revision:	**01**
Document Revision Date:	**17/05/2022**

IMPORTANT: The onus is on the user to check this document's 'Revision Date' to ensure that the document is the current version as available on the Hydrera Intranet.

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1. INTRODUCTION

Hydrera Water Services PTY LTD (HYDRERA) delivers a comprehensive range of Fluid Storage Solutions and Fluid Management Services.

Hydrera are the providers of choice to the resources Industries through innovative design, development and management of their people and equipment. Ensuring the safest and highest quality services to our customers, Hydrera prides itself on 'Finding Solutions' to meet these customer needs.

2. PURPOSE AND SCOPE

This environment management plan and supporting documentation outlines Hydrera's effective means of managing safety across all Hydrera offices and sites. Contractors and sub-contractors are also required to adhere to all Policies and Procedures outlined in the HYDRERA environment management plan.

When working on client sites Hydrera will adhere to any client's environment management plan, Policies or Procedures.

3. MISSION AND VALUES

Hydrera is committed to protecting the environment, indigenous, heritage and native lands. Hydrera respects the traditional beliefs of the land's traditional owners as well as native flora & fauna.

Hydrera's aim is to minimise the risk of damage and introduction of disease to the environment by our workers and other persons by adopting a planned and systematic approach to the management of the local environment by providing the resources for a successful implementation.

Where applicable it is Hydrera's plan to re-vegetate the environment, it operates in by engaging traditional and/or current landowners to ensure the environment has best opportunity to re-vegetate. The environment along with work health & safety remains high priority for Hydrera. No business objective will take priority over this.

4. RELEVANT LEGISLATION AND COMPLIANCE

Native Title Act 1993
State Environment Protection Acts
Native Vegetation Act 1993
Heritage Act 1995
Water and Sewage Industry Act 2008
Workplace Health & Safety Act 2012
Noise Control Act 1988
Dangerous Goods Act 1995
Hazardous Waste Act 1999

5. ENVIRONMENTAL MANAGEMENT POLICY

Hydrera is committed to the protection and preservation of the environment in the performance of its duties as a provider of Fluid Storage, and Fluid Management services within the industries in which we work. This commitment is embraced by the Company's employees and contractors.

To achieve this, the company has implemented an integrated management system and modelled against ISO 9001:2015, ISO 45001:2018 and ISO 14001:2015.

Hydrera's activities will be planned and performed to avoid or contain at an acceptable level, adverse effects on the environment. These activities will also conform to all statutory requirements. The purpose of this Environmental Policy is to define environmental objectives with which activities from services provided, and related activities including storage and transportation, must conform, and the criteria upon which achievement of those objectives can be assessed.

Based on risks to the environment, the following are the primary environmental objectives:

- avoid disturbance to sites of heritage significance
- minimise disturbance to vegetation and habitat
- avoid disturbance to rare, endangered, and vulnerable species; also minimise adverse impact on livestock
- avoid impacts on high biological value or wilderness value areas
- avoid facility and transport spills, this includes ensuring disposed formation water is oil free
- avoid contamination of stock-waters with hydrocarbons
- minimise visual impacts & environmental workforce hazards.

Accordingly, Hydrera will:

- comply with applicable laws and regulations
- where laws and/or regulations do not exist, conduct our operations, always applying responsible standards and, where applicable, act within the environmental policies of our clients
- commit to a periodic and regular review of its Environmental Policy in the light of new technology, changing legislation and recommended industry practices, continually improve Environmental performance and systems.
- assess potential environmental effects to lessen our activity footprint, and conduct operations in a sustainable manner regarding the environment
- encourage concern and respect for the environment
- ensure that employees and contractors are aware of their responsibilities with respect to environmental management and protection
- ensure employees and contractors understand and adhere to this Environment Policy.

Senior management fully endorse this Environmental Policy and the formal integrated management system that has been developed and implemented.

Eddie Pigeon **Date : 08/04/2022**
General Manager

6. NATIVE TITLES

Hydrera will ensure that all sites that are operated by Hydrera will be respected and managed in accordance with the Native Titles Act 1993.

The Native Titles Act outlines what boundaries HYDRERA are to operate within. Working in conjunction with the Native Titles Act, Hydrera will also work in accordance with the Native Vegetation Act 1993 to ensure it preserves the environment and re-vegetates any work site after works are completed if required to do so.

Depending on the location and environment surroundings, the Heritage Act 1995 may be applicable to any works being completed. If heritage is a factor, all works will be completed in accordance with the Act.

7. INDIGENOUS

Where HYDRERA will be operating on a site with risk in causing distress to the local environment, HYDRERA will understand if the site is a sensitive indigenous site.

If the location which HYDRERA will be operating is indigenous sensitive, a representative from the HSE department will attempt to engage a traditional owner representative to best understand what assistance HYDRERA can offer in rehabilitating the land after use, but also what locations HYDRERA will not disturb during operation.

8. ROLES AND RESPONSIBILITIES

Board of Directors

The Directors and Owner of the business will ensure that all employees of Hydrera (including all managers and supervisors) will comply with the legislative requirements under the relevant state environment Acts.

The Directors have total responsibility for the business as the designated Person in Charge.

- The General Manager shall provide:
- Safe working environment;
- Safe System of Work for environment; Plant & Substance in a safe condition;
- Ensure all managers and supervisors are adequately skilled to manage environmental incidents;
- Adequate facilities for all employees;
- Ensure proper information is provided to all employees.

Department Managers

Hydrera's Department Managers will ensure that all employees, contractors / sub-contractors will comply with the compliance and legislative requirements under the relevant state Environment Protection Acts.

Managers will be responsible for ensuring that each department complies with the company environment system.

The manager shall:

- Ensure all employees & contractors are adequately trained for the task they are undertaking;
- Ensure all employees & contractors are aware of the companies Policies & Standard Operating Procedures (SOP);
- Consult at least weekly with the Environment, Health & Safety (HSE) department to ensure ongoing compliance;
- Provide a working environment free from hazards to the environment and local native area;

- Respond as soon as possible to potential incidents causing damage to the environment; and
- Provide support to supervisors in managing day to day environmental concerns

Supervisors

Supervisors will ensure consistent compliance with legislative requirements, Hydrera Environmental, Health & Safety (HSE) and Operational Policies and Procedures, and the local native environment. Where Hydrera personnel are working at client sites the Supervisors will:

- Ensure adequate steps are taken to identify, assess, and control hazards to the environment;
- Ensure a JHA/JSA/SWMS is completed for jobs/individual tasks in line with company Policy; Ensure
- SOPs are established as required;
- Ensure employees are adequately trained to the tasks they are undertaking; Ensure adequate
- instruction and supervision is provided to all employees;
- Where a hazard or risk to the environment is identified, take immediate steps to protect it;
- Investigate all environmental incidents and provide reports;
- Immediately report any substantial or on-going environment issues to a manager; Consult with
- employees/contractors; and
- Assist in re-vegetating a work area once a task is complete.

Contractors and Sub-Contractors

All businesses and individuals contracting to Hydrera must comply with Environment Protection Authority (EPA) and other relevant legislation and with all relevant Hydrera Policies and Procedures.

Breaches to the environment may lead to the termination of contracts. Contractors working on Hydrera job sites or premises must not place the environment at risk.

The Hydrera Department Manager must ensure that contractors working on Hydrera sites or premises are aware of hazards and Environmental Emergency Procedures and have the capacity to complete the work safely.

Where work is being performed that may be harmful to the environment, the work shall be stopped until it is made safe. Where sub-contractors are working under the direction of Hydrera, the same standards apply for environmental protection as they do for Hydrera employees.

It is the responsibility of the Hydrera Supervisor to ensure that sub-contractors have sufficient tools and equipment, information, instruction, training and supervision to enable them to work without causing damage to the environment.

Legal Compliance

The relevant state Environment Protection Act (EPA Act) places responsibilities on companies and individuals, and failure to comply can result in prosecution. The EPA Act also includes responsibilities of employers and employees. Failure to comply can result in prosecution.

Approved Codes of Practice give guidance on what is required to satisfy the Act and other relevant legislation requirements.

Hydrera requires all Managers, Supervisors, and employees/contractors to comply with their respective legal duties and to assist in ensuring that HYDRERA complies with its legal duties.

Record Keeping

It is the responsibility of decision-makers to ensure that accurate records are kept for all environmental matters, including:

- Registers set out in the HSE Manual (e.g., risk register); Meeting minutes;
- Records of training and inductions; Workplace inspection records and action lists; JHA/JSAs/SWMS;
- Risk assessments; SOP;
- Records of counselling sessions and disciplinary action; and other environment-related records.
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9. WORKFORCE CONSULATATION

Hydrera is committed to open communication and consultation; consultation is demonstrated through Management meetings and regular toolbox safety meetings. Direct face to face and email communication and SMS text message is used to communicate relevant operational information to employees.

Face to face discussions between managers, supervisors and employees are encouraged, also supported are the formal structures such as Health and Safety representatives where elected.

Access to Management

Where employees/contractors have concerns regarding health and safety they are encouraged to discuss the matter with their supervisor immediately. Alternatively, their concerns can be raised at the toolbox meeting, where such concerns will be recorded and passed on to the relevant Manager.

In addition, at any time, each employee/contractor is welcome to speak directly to the General Manager or to the HSE Manager on any matter of concern.

10. ENVIRONMENTAL EMERGENCY EVACUATION

Hydrera will ensure all their staff are aware of the emergency procedure for environmental incidents that require evacuation. All staff will be aware of their requirements to facilitate some of the incident notifications and participation in investigations.

Key areas Hydrera will address prior to works commencing are:

Prior to commencement on site of Construction works

- Hold toolbox meeting and discuss environmental issues, Procedures and instructions that control Hydrera activities on site.
- Ensure that environmental control measures are in place and are adequate.

Managing the Incident

All incidents will be managed during their development through to the completion, when the situation is safe. Where the initial incident occurs on the Worksite under the control of Hydrera, then Hydrera shall manage the incident until emergency response professionals arrive at the Emergency location.

Procedure when there is an Environmental Breach or Incident

- Stop work immediately and take the necessary action to stop the cause of the breach. Notify the department manager/ supervisor immediately and take all steps to minimise the damage and limit the impact (effect) of the breach, if safe to do so.
- If the breach is serious and additional resources other than what is available to Hydrera are required, immediately notify the local authorities and the EPA with the aim of getting specialist assistance quickly.

Reporting and Investigation of Breach

- Immediately notify the manager/client of the breach. Prepare an Incident Report.
- Depending on the severity of the incident, notify the EPA of the breach.
- Investigate the breach and put in place corrective action to minimise the risk that the incident may occur again.

All Environmental Incidents requiring an emergency evacuation must be completed in accordance with *Environmental Evacuation* procedure.

11. ENVIRONMENTAL INCIDENT REPORTING

All environment incidents must be reported as soon as possible to the General Manager. Depending on the type or potential damage to the environment, a report may need to be made to the relevant EPA. If the incident occurs on a client site, the client manager must be notified first.

All environmental incident reporting must be done in accordance with Hydrera *Environmental Policy, Incident Reporting* and completed using the Hydrera *Incident Report.*

12. NEW EMPLOYEES

Personnel employed to work at Hydrera work sites will be expected to comply with Hydrera Policies and Procedures as well as any additional requirements placed on Hydrera by the customer.

Inductions

Employees must complete a Hydrera Induction prior to commencing employment. At the commencement of employment employees are required to undertake the Hydrera Company Induction and Safety Area Inductions specific to the tasks they will be performing.

Hydrera employees working on client sites may be required to complete other specific client inductions, and these must be completed prior to any work commencing on a client site.

Subcontractor Management

If subcontractor labour or assistance is required, Hydrera will make assessment of suitability of both personnel and equipment prior to mobilisations onto a client work site.

No subcontracting company or employees are to be used without having completed the required scrutiny and approval processes.

All subcontractor labour or assistance will work within Hydrera Australia's specified work parameters and always abide with Hydrera Australia procedures.

13. ENVIRONMENTAL AUDITING

Purpose

To describe the method of conducting Hydrera environmental audits. The environment audits will evaluate the effectiveness and efficiency of the organisation's environmental management system.

Benefits

The benefits of auditing are:

To ensure personnel are performing their task in a manner that will cause no harm to the environment; To maintain the relevance and accuracy of SOP's;
To promote the commitment Hydrera must preserving the environment;

To ensure all hazards are controlled effectively or eliminated; to encourage continuous improvement.

Scope

- This procedure applies to Hydrera personnel who are trained to undertake audits by:
- Planning the audit Use of investigation Evaluate the results
- Prepare reports on issues raised
- Follow up and assist in rectifying the problems

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14. WORKPLACE INSPECTIONS

Workplace inspections are to be conducted for all work areas in accordance with the audit/workplace inspections schedule. Supervisors are responsible for the conduct of Inspections but may delegate the task to a competent person or team.

Employees/contractors are encouraged to participate in the Inspections either in conducting inspections or providing input during the inspection.

The Inspection will compliment both a hazard inspection and compliance to the environment management system. After each Inspection, a feedback session must be held with personnel from the area to discuss findings. This session may occur at the next toolbox meeting following the day of inspection.

The person in charge of the work area must hold a record of inspections and a report must be provided to the Responsible Officer and/or General Manager.

Where hazards are identified, an Action List must be prepared by the Supervisor detailing the actions to be taken, by whom, and when.

A person or persons who do not normally work in the area to be inspected must conduct at least one Inspection in each year. At the discretion of the Responsible Officer or his delegate the Inspection may be conducted by Hydrera personnel from another area or by an experienced person (e.g., consultant) from outside the organisation.

15. GENERAL HOUSE KEEPING

Maintaining a Clean and Orderly Workplace

- All work areas must be kept clear of unnecessary clutter.
- Care must be taken to avoid creating hazards that have potential to damage the environment e.g., spills.
- Floors must be kept, even, unbroken and slip resistant.
- Spills of liquids (e.g., oil) that could cause a hazard must be cleaned up immediately. Hazard warnings must be erected in areas where there is a slipping hazard.
- All work areas are to be kept clean and tidy.
- It is the responsibility of those working in an area to always maintain a high standard of housekeeping and to regularly clean up the work areas.
- A job is not complete until the work area is cleaned up and hazardous substances stored correctly.
- Rubbish and waste products (e.g., oil) must be disposed of in a responsible manner to minimise potential environmental impacts. *HYDRERA Waste Management.*

Emergency Exits

Emergency exits must be clearly marked with signs consistent with Australian Standards and free of clutter & obstruction.

Workplace Inspections

Workplace Inspections shall include inspection of the areas hazardous substances storage, waste disposal, etc.

16. RISK ASSESSMENT

Hydrera will use the same process & procedure for assessing Environmental Risk as it does its Health & Safety. Risk assessments to be completed using the HYDRERA Risk Matrix.

System Failure:
Risk can be considered as the potential for adverse effects to result from an activity or an event.

Before judgement can be made about the safety of a process or activity, it is necessary for the individual to be aware of the risks involved.

For this reason, it is important to utilize the HYDRERA STEP card (Stop Think Evaluate proceed) that enables employees to determine risk levels quickly and with confidence so that proper assessments can be made about the nature of a particular risk. Failure to have such a mechanism in place can cause unnecessary delays or even stoppages in the workplace because the employees are unable to assess, without assistance, if a particular exposure causes them to be at risk of imminent injury or harm to their health.

Failure to Comply:

Employees bear some responsibility for risk assessment at work. Employees must observe the established work practices and Procedures as instructed and must be involved in the identification and assessment of risks. Failure to do so could result in disciplinary action as outlined in the Hydrera Disciplinary Policy.

Procedure:

Use HazOB Step Cards and the Inspection and Checklists that are available on the HYDRERA Intranet to assist with identifying hazards. Once the checklist has been completed, a complete Risk Assessment can be done using the Hydrera Risk Matrix, which is also available on the Hydrera Sharepoint.

The following procedure will enable you to complete the full Risk Assessment. The Risk Assessment will need to be accepted and documented in the Hazards/Risks Register by the respective Manager/Field Superintendent or HSE Manager before being implemented.

Please contact the HSE Manager if you require assistance with completing the Risk Assessment.

Basic Steps

There are six basic steps in the risk management process:

1. **Establish** the context
2. **Identify** hazards
3. **Analyse** risks that may result because of the hazard
4. **Evaluate** the risks
5. **Treat** the risks
6. **Review and Monitor** the risk

Risk Management Step 1- Establish the context What is the work process?
An understanding needs to be reached of the task. This part of the process is essentially descriptive.

Risk Management Step 2 - Identifying the Hazard What is the hazard?
Knowledge of the workplace hazards will assist.

- Is the risk associated with the hazard obviously a minor risk or can the hazard be fixed easily?
- If you can answer yes to this question, you should note this as your assessment of the risk and/or fix the hazard immediately. Record your findings or action. You then need to monitor and review your findings at a predetermined date.
- If it is not a minor risk is there a regulation, advisory standard, or industry code of practice for this hazard?

If there is a regulation, advisory standard, industry code of practice and/or guidance material available, you are to refer to the advice in that document(s).

Risk Management Step 3 - Analyse the Risk Analysing the risk involves determination of the:

- Exposure – interaction with hazard
- Likelihood – probability that consequences will occur once individual is exposed
- Consequences – outcome of an incident

Process - Use the Hydrera Risk Matrix for analysing and evaluating risk. The objective of analysing risk is to determine whether the risk is acceptable. It provides a qualitative tool that assists in prioritising risk. The Hydrera Risk Matrix determines the level of risk by defining likelihood, consequences and exposure.

How to use the HYDRERA Risk Matrix

1. Estimate the Exposure
Estimate how often an individual interacts with a hazard and identify the exposure

2. Identify the Likelihood
Identify the likelihood of an event happening in a realistic scenario given the planned exposure and select the most appropriate likelihood category from the table.

A. LIKELIHOOD	
Rare	Practically impossible
Unlikely	Not likely to occur
Possible	Could occur or “I’ve heard of it happening”
Likely	Is known to occur or it “has happened”
Almost Certain	Common or frequent occurrence

3. Identify the Consequence
Identify the most likely outcome of a potential accident, including injuries, property damage, production interruption, environmental damage and/or media coverage and their magnitude in a realistic scenario. Select the most appropriate consequence category from the table.

B. CONSEQUENCE					
	Injury	**Plant/Property Damage; Revenue/Efficiency Loss**	**Production Interruption**	**Environmental**	**Media / PR**
Insignificant	No injuries	< $1K	Partial loss, minor	Perception only	No media interest
Minor	First aid treatment	< $10K	Partial loss significant	On site release immediately contained	Limited local media coverage.
Moderate	Medical treatment injury or illness	< $100K	Full loss <1day	On/Off site release contained. No impact	Extensive local media coverage, minor State-wide coverage.
Major	Lost time injury or illness	< $1M	Full loss >1day	On/Off site release with minor impact	Extensive local and State media coverage, minor brand damage.
Catastrophic	Fatality/Potential Fatality	> $1M	Full loss multiple days	Major environmental damage	Extensive local, State &National coverage, major brand damage.

Risk Management Step 4 - Evaluate the risk

Ascertain the risk score using the HYDRERA Risk Matrix.

C. RISK RATING = LIKELIHOOD (A) X CONSEQUENCE (B)

	CONSEQUENCE				
LIKELIHOOD	**INSIGNIFICANT**	**MINOR**	**MODERATE**	**MAJOR**	**CATASTROPHIC**
Rare	**Low**	**Low**	**Low**	**Moderate**	**Moderate**
Unlikely	**Low**	**Low**	**Moderate**	**High**	**High**
Possible	**Low**	**Moderate**	**High**	**High**	**High**
Likely	**Moderate**	**Moderate**	**High**	**Extreme**	**Extreme**
Almost Certain	**Moderate**	**High**	**High**	**Extreme**	**Extreme**

As a result of the risk assessment, controls are to be determined and documented in JLB Track by the respective Manager or Field Superintendent, who is also responsible for ensuring that recommended action is promptly taken and fully, effectively addresses the problem.

D. RISK CONTROL GUIDE

Risk Score	**Action Required**

Extreme	Stop work - eliminate hazard
High	Stop work - substitute hazard by using another equipment or process
Moderate	Reduce impact of hazard through administrative processes (SOPs, SWMS, etc.)
Low	Manage hazard by ensuring personal protective clothing/equipment is used

Risk Management Step 5 - Treat the Risks

In many cases, it will be necessary to use more than one control measure to manage exposure to risk. For example, to minimise exposure to a risk involving a chemical you could decide to replace the chemical with a less toxic one, implement safer work procedures and use a fume cupboard.

Some control measures that are lower control priorities may need to be put in place until a permanent solution can be achieved. For example, you may decide the best way to manage exposure to a risk is to purchase a safer type of machinery with better guarding. In the meantime, it will be necessary to minimise exposure to the risk by increasing supervision, changing work procedures and erecting a temporary barrier. Whatever control measures are being chosen, the "hierarchy of control measures" must be considered. Consider those at the top of the list, from elimination, and work down to personal protective equipment as the least desirable choice.

Hierarchy of Control Measures

- **Eliminate** the hazard is the first choice the ideal solution is to get rid of the hazard completely. This is the most effective control measure and should always be considered first.

If the hazard cannot be eliminated completely there are several control options that can be used to prevent or minimise exposure to the risk:

- **Substituting** a less hazardous material, process or equipment
- **Redesigning** the equipment or work process,
- **Isolating** the hazard through engineering – separating the worker from the hazard.
- **Administrative** controls involve minimising exposure to a risk using procedures or instruction. This could involve limiting the exposure time to a particular hazard such as noise or radiation.
- **Personal Protective Equipment (PPE)** is used as a last resort when exposure to risk is not or cannot be minimised by other means. **PPE** is worn by people as a final barrier between themselves and the hazard. This measure does not control the hazard at the source but relies on behaviour modification for its success. The success of this control is dependent on the correct PPE being chosen, worn correctly, used correctly and maintained in good condition.

Administration and the use of personal protective equipment are the lowest priority on the list of controls. These controls should NOT be relied on as the primary means of risk control until the options higher in the control priorities have been exhausted. These controls require management, enforcement, and commitment, together with behavioural modification.

Implement the Control Measures

- You will need to develop work procedures in relation to the new control measures, which may involve clearly defining responsibilities of management, supervisors and workers.

- You must inform all relevant persons about the control measures being implemented; in particular, the reasons for the changes.
- You should provide adequate supervision to verify that the new control measures are being implemented and used correctly.
- Any maintenance in relation to the control measures is an important part of the process. Work procedures should detail maintenance requirements and verification of the maintenance to ensure the ongoing effectiveness of the control measures.

Risk Management Step 6 - Monitor and Review the Risk

The final step in the process is to monitor and review the effectiveness of measures.

Set dates to review and record those dates in JLB Track where appropriate.

Ask questions to determine whether:

- Chosen control measure have been implemented, as planned
- Are chosen control measures in place?
- Are these measures being used?
- Are the measures being used correctly?
- Chosen control measures are working
- Have the changes made to control exposure to the assessed risks resulted in what was intended?
- Has exposure to the assessed risks been eliminated or adequately reduced?
- Have implemented control measures resulted in the introduction of any new problems?
- Have implemented control measures resulted in the worsening of any existing problems?

Risk Rating = Likelihood (A) X Consequence (B)						
A. LIKELIHOOD	**What is the likelihood of an event happening in a realistic scenario given the planned exposure?**					
	Rare			Practically impossible		
	Unlikely			Not likely to occur		
	Possible			Could occur or "I've heard of it happening"		
	Likely			Is known to occur or it "has happened"		
B. CONSEQUENCE	**What are the potential outcomes and their magnitude in a realistic scenario?**					
		Injury	**Plant/Property Damage; Revenue/Efficiency Loss**	**Production Interruption**	**Environmental**	**Media/PR**
	Insignificant	No injuries	< $1K	Partial loss, minor	Perception only	No media interest
	Minor	First aid treatment	< $10K	Partial loss significant	On site release immediately contained	Limited local media coverage.
	Moderate	Medical treatment injury or illness	< $100K	Full loss <1day	On/Off site release contained. No impact	Extensive local media coverage, minor State-wide coverage.
	Major	Lost time injury or illness	< $1M	Full loss >1day	On/Off site release with minor impact	Extensive local and State media coverage, minor brand damage.
	Catastrophic	Fatality/Potential Fatality	> $1M	Full loss multiple days	Major environmental damage	Extensive local, State &National coverage, major brand damage.
C. RISK RATING	**CONSEQUENCE**					
	LIKELIHOOD	**INSIGNIFICANT**	**MINOR**	**MODERATE**	**MAJOR**	**CATASTROPHIC**
	Rare	Low	Low	Low	Medium	Medium
	Unlikely	Low	Low	Medium	High	High
	Possible	Low	Medium	High	High	High
	Likely	Medium	Medium	High	Extreme	Extreme
	Almost Certain	Medium	High	High	Extreme	Extreme
D. RISK CONTROL GUIDE	**RISK SCORE**			**ACTION REQUIRED**		
	Extreme			Stop work - eliminate hazard		
	High			Stop work - substitute hazard by using another equipment or process		
	Medium			Reduce impact of hazard through administrative processes (SOPs, SWMS, etc.)		
	Low			Manage hazard by ensuring personal protective clothing/equipment is used		

17. FATIGUE & HEAT STRESS MANAGEMENT

Fatigue

Hydrera Australia recognises that fatigue can contribute to:

- The frequency and potential outcome of incidents in the workplace,
- The mental and emotional wellbeing of workers and
- Negative effects to productivity and safety standards

Work related fatigue may arise from situations requiring concentration for extended periods during work hours, working in extreme temperatures and/or conditions or working in high-risk situations. Non-work-related fatigue is generally because of poor quality or inadequate sleep which may be caused by several reasons. Hydrera will provide access to the appropriate information and education on the causes of and management of fatigue.

Hydrera is responsible for ensuring that roster cycles are monitored and reviewed to address the potential for fatigue, especially for field personnel involved in shift work and/or potentially hazardous activities. Hydrera will monitor shifts to prevent excessive time working and that there is adequate opportunity for rest. Practical steps will also be taken to assess and manage the work environment to minimise the effect of fatigue.

Individuals are responsible for effectively managing fatigue issues and to prevent fatigue from impacting on their fitness for work. If an individual feels they are seriously fatigued whilst at work so much, so they impact on the safety of themselves or others they need to notify their manager/supervisor immediately.

Managers/supervisors will be required to assess whether an individual is unfit for work due to fatigue. Individuals found to be unfit for work will be required to cease work and may also be required to leave the worksite. Hydrera will take reasonable steps to ensure the individual is able to get home safely.

The primary tool for the company to reduce fatigue in the workplace is to ensure that rosters and schedules are appropriate to each workers requirements for adequate rest and to perform tasks according to law.

- Schedulers must allow workers to be given time to plan for long shifts;
- Unfamiliar or irregular work must be avoided;
- Consideration is given to increased risk factors during night and/or extended work hours;
- Flexible schedules allow workers to take rests;
- When workers return from leave, night-shift work is minimised where possible until workers have adapted to long working hours;
- Rosters are sympathetic to workers rest habits and in some cases individual needs;
- Workers will have the minimum entitlement for breaks in between shifts as outlined in the relevant Award provisions for breaks.

Risk Management Matrix

To start considering hazards and risk that may be associated with the **working hours** arrangements at your **workplace**/industry, follow the three steps set out below.

Step 1: Hazard identification	Step 2: Risk assessment			Step 3: Risk control
Identify potential hazard factors at the workplace/industry, such as those listed in the column below.	*Assess level of risk for the hazard factors identified at the workplace (such as those listed in the column to the left), using the general risk indicator arrow guide below. In assessing risk: 1) consider interaction between hazard factors that could influence level of risk; and 2) as level of risk for each hazard factor is only indicative, take into account specific workplace/industry circumstances that may influence it.*			*Where a hazard factor is assessed as being above low risk/medium risk, consider implementing control measures, such as those outlined in Section 4 of the Approved Code of Practice: Working Hours.*
	General risk indicator for hazard factors **Action**: *Where risk is assessed as being above low/medium risk, undertake Step 3 in the next column.* Increasing level of risk Lower risk → Higher risk			
1. Working Hours Arrangements				
1.1 Hours				
1.1.1 Average weekly hours (other than FIFO)	35-40 hours	48 hours	56 hours	
1.1.2 Total hours over a three-month period (other than FIFO)		624 hours		
1.1.3 Daily work hours		9 hours	12 hours	Consider control measures — see those suggested for **working hours** in Section 4 of the Approved Code of Practice: Working Hours.
1.1.4 Daily work hours and work-related travel		10 hours	13 hours	
1.1.5 Scheduling of work	Regular and predictable hours		Irregular and unpredictable hours Short notice of schedule Extended overtime On call across shift cycle	

The management of workplace fatigue shall be conducted as per the requirements of Hydrera HSEP15 Fatigue Management Policy and Hydrera HRP28 Fitness for Work Policy Procedure.

Heat Stress

Hydrera recognises the need to ensure the health and safety of our workforce in the hot extremes of our climate.

Managers and/or supervisors are to assess and implement contingencies for the associated risks of tasks that must be done during times of high or extreme temperatures. During this assessment consideration must be given to:

- The temperature
- Levels of humidity
- The amount of air movement
- Any radiant temperature from equipment etc
- Clothing, including PPE that is required wearing
- The amount of physical activity required for the task

Where any of the above are considered to have a potential to contribute to heat stress, controls, based on the Hydrera Hierarchy of Control, must be implemented to ensure the health and safety of all workers.

Controls can include:

- Alteration to work schedules to ensure that heavier work occurs during cooler times

- Monitoring of individual workloads, ensuring that where possible the load is shared
- Ensuring that workers wear appropriate clothing that prevents or reduces the effects of UV radiation and is made of material that "breathes" and allows the body to perspire
- Using a "buddy" system where tasks must be undertaken during extreme heat.
- Never leave a worker to perform extended tasks alone

- Ensure adequate rest periods in a cool environment are provided which:
  - Allow the worker's metabolic heat to reduce
  - Decrease environmental heat
  - Provide an opportunity for increased fluid intake
  - Where workers are required to operate in high to extreme temperatures and/or humidity, they must be provided with:
- Up to 10L of potable water per day, per worker
- Protection forms constant heat which may include use of cool down rooms where possible
- Adequate supervision to ensure that proper fluid intake is maintained

The management of Heat Stress shall be conducted as per the requirements of Hydrera HSEP22 Heat Stress Management Policy.

18. STANDARD OPERATING PROCEDURES

Once the risk assessment process is completed, an SOP may be developed for describing correct safe working practices.

Consideration must be given to preparing an SOP for hazardous tasks that will be performed by a variety of personnel at different times, and for, tasks that are performed at different locations.

An SOP sets out in clear terms the detailed practices and Procedures to be followed to control risks to safely perform tasks. An SOP may be used to describe Procedures to be followed in relation to a specific hazard, risk, activity, or individual task, and should be prepared where specific requirements for the maintenance of health and safety are relevant to a variety of locations, tasks, or personnel.

SOP's may be developed by one person or by a small team (e.g., a supervisor and an employee), and a record of risk assessments must be retained.

The SOP may be directed solely at describing a particular task and its risk, detailing the measures required to control that risk, or it may detail the way to complete a task to minimise the risk. In either case, the SOP must describe the "Scope", "Risks", and "required measures to minimise risks to health, safety and environment". The layout of the SOP includes the following headings.

Scope

The tasks, personnel, locations, or hazards covered in the SOP must be specified.

Purpose

The information provided in this section must clarify the purpose and need of the SOP.

System Failure

Outlines the requirements to comply, nature of hazards or risks to be controlled, and must be based on a risk assessment of the type used in the development of JHAs/JSAs/SWMS.

Procedure - Basic Steps

Under this heading the measures required to protect the environment must be listed. So far as possible, the SOP must specify "**who** must do **what**, **when**, and **where**".

Authorisation

SOPs shall be authorised by a responsible person (e.g., manager), and dated. All new SOP's must be discussed and highlighted with the workgroup at the daily toolbox meeting.

Document Control

All SOP and JHAs/SWMS are recorded on the relevant document register.

Simultaneous Operations

Occasionally, Hydrera Australia's operations may be conducted on a site where another contracting group may be present. In these circumstances a degree of interaction is expected, and definitive steps are to be taken to limit any compounding impact on safe operations.

Communication will be conducted in a clear and concise fashion and a cooperative position shall be adopted with any other work group present on the site.

Inclusive toolbox/safety meetings shall be conducted to communicate necessary safety precautions, responsibilities and expectations.

All works in these circumstances shall work under the Wellsite permit to work system which allows for risk management of all hazardous works, especially those generated by simultaneous operations between two or more parties.

Equipment standards

All equipment and/or plant, shall be suitable for purpose, certified where appropriate and required, and maintained in accordance with manufacturing specifications. Equipment will be checked for compliance against relevant standards and certified as serviceable prior to mobilization to any site.

The engineering manager is to maintain a record of assets, which at the minimum lists the equipment standards of compliance, schedules of maintenance and any certifications of currency that are associated with the equipment or plant.

19. JHA/JSAs/SWMS

Requirement for JHA/JSA & SWMS

Job Hazard Analyses (JHAs), Job Safety Analyses (JSA) and Safe Work Method Statements (SWMS) provide a means by which risks to health, safety and environment may be identified and assessed, and provide a basis for implementing control measures where necessary. Identification, assessment and control of risks are mandatory under State law.

Job Hazard Analyses are risk assessments of operational tasks for DST, DAQ, IFO, DFIT, Job Safety Analyses are risk assessments of operational tasks for SWT, and Safe Work Method Statements are used to risk assess tasks conducted at Hydrera workshops.

JHAs/JSAs/SWMS must be completed for every new or amended task not covered by an existing JHA/JSA/SWMS or SOP. JHAs/JSAs/SWMS must be reviewed whenever a task is changed such that it may affect the risk assessment for the task or prior to commencing a job at a work site to ensure the hazards and controls are still relevant and any additional site or job specific hazards and their controls are identified.

Responsibility for JHAs/JSAs/SWMS

It is the responsibility of a supervisor to ensure that a JHA/JSA/SWMS is completed for each job/task for which there is not a current JHA/JSA/SWMS or SOP, and where there would be reasonable grounds to believe that there is a risk to health, safety and environment in the performance of that job/task. A JHA/JSA/SWMS must be reviewed where a change occurs in the job/task or the circumstances in which the job/task is performed if those changes may alter risks or the effectiveness of control measures.

All Hydrera managers and supervisors must be competent to complete a JHA/JSA/SWMS individually or as part of a team. All employees/contractors must be familiar with JHAs/JSAs/SWMS and must be encouraged to participate in completing risk assessments relevant to their own work.

Who Completes the JHA/JSA/SWMS?

JHAs/JSAs/SWMS may be conducted by one person or by a small team (e.g., a supervisor and an individual). Individuals involved in JHAs/JSAs/SWMS must receive training in the conduct of risk assessments and/or have a detailed knowledge of the task (s) which is the subject of the JHA/JSA/SWMS.

Risk Assessment Process

1. Systematically break the task down into basic steps;
2. Identify hazards and risks which may be involved in each step;
3. Make a risk assessment for each identified hazard/risk;
4. Determine an efficient method of safely completing the task, taking account of the risk assessment and necessary control measures;
5. List the steps for the safe and efficient performance of the task;
6. Reassess the residual risk
7. List the hazards/risks and the required control measures for each step

Risk Assessments involving Plant

The risk identification and assessment process must address the full range of potential risks. For example, when doing a JHA/JSA/SWMS for a job/task that involves plant, consider the following points: Suitability of the type of plant; Actual and intended use of the plant;

- Environmental conditions and terrain; Foreseeable abnormal situations; Capability of the plant;
- Control's systems - guarding and communication systems; Potential for falling objects or the overturn of the plant; Suitability and condition of accessories;
- Adequacy of access and egress; and Competency of operators.

Generic JHAs/JSAs/SWMS

A JHA/JSA/SWMS may be prepared to cover several tasks, which are very similar. Care must be taken to investigate potential differences between jobs/tasks, which may affect risk, and to take account of such differences when identifying and assessing risks and implementing control measures.

Where a generic JHA/JSA/SWMS has been completed it may still be necessary to supplement this with specific risk assessments for individual, tasks to ensure safety standards are maintained.

Records

The JHA/JSA/SWMS must be written up clearly, signed by all appropriate personnel and be readily available to the employees performing the work, and to their supervisor to read and sign before commencing the task. A copy of the JHA/JSA/SWMS must be kept as a record.

20. TRANSPORT & LOAD RESTRAINT

Hydrera Vehicle and Transportation Policy applies to all transportation of Heavy Equipment by vehicles used within client or Hydrera Australia Operational areas.

Passengers may not be carried on any Vehicle tray unless a seat with a seat belt is provided and it has appropriate engineering certification and has been authorised by the department of transport and infrastructure.

Heavy equipment shall be secured to vehicles in an appropriate manner. All securing devices shall be inspected for serviceability and be used as per manufacturer's instructions. Securing devices will be removed from service when faults with the device are identified during the securing of a load or inspection.

Loads will be placed on the vehicles carrying area such as to ensure that weight is evenly spaced and that items are secured correctly to prevent equipment falling from the vehicle during transport. Loads will not be placed on vehicles such that they exceed the vehicles maximum load rating. Under no circumstances is any vehicle to be over loaded.

Where possible, an engineered solution to loading will be investigated and if viable, implemented. Loads such as tool shacks will be connected in a physical manner to the tray deck of transport vehicles. Pipe baskets, and enclosed toolboxes should be physically mounted to vehicle trays where possible. Other loads shall be sufficiently secured with ratchet straps that are weight rated appropriately, or by chains.

Personnel involved in loading shall inspect all load restraining equipment and confirm its serviceability prior to restraining any load. Personnel shall be instructed in the correct methods of restraint on a variety of load types and load restraint equipment and signed off as competent.

Chain of Responsibility

The chain of responsibility code of practice extends liability for road law offences to all parties who by their actions, inactions or demands, exercise control or influence over conduct regarding loading of vehicles and on the road. All personnel, from the General Manager to the Vehicle Driver now have a duty of care to operate a vehicle in a safe manner and ensure that loads and other materials being carried are secure, within the limit of the vehicle's capacity and within the required dimensions for the vehicle.

All personnel involved in the transport of any goods are to ensure that the loading method is appropriate, the restraining method is adequate, that load limits are not breached and that no load shall overhang or otherwise not be contained by the area designated for carrying loads on any specific vehicle.

When loading or unloading vehicles an exclusion zone shall be presumed to exist around the vehicle of no less than 2 meters on all sides.

Vehicles are to be loaded and equipment restrained in accordance with the National Load Restraint Guide 2018

All drivers operating heavy vehicles are to ensure that they keep a National Work Diary and complete it for all heavy vehicle travel greater than 100kms from base as per requirements of the Queensland Heavy Vehicle National Law Act 2012 & Queensland Heavy Vehicle (Fatigue Management) National Regulation 2016

Work hours and rest periods are to be strictly adhered to and the work diary must be completed to reflect these.

Driving time and required rest periods are stated below for standard hours;

Standard hours

Table 1: Solo drivers

Time	Work	Rest
In any period of ...	A driver must not work for more than a **MAXIMUM** of ...	And must have the rest of that period off work with at least a **MINIMUM** rest break of ...
5 ½ hours	5 ¼ hours work time	15 continuous minutes rest time
8 hours	7 ½ hours work time	30 minutes rest time in blocks of 15 continuous minutes
11 hours	10 hours work time	60 minutes rest time in blocks of 15 continuous minutes
24 hours	12 hours work time	7 continuous hours stationary rest time [1]
7 days (168 hours)	72 hours work time	24 continuous hours stationary rest time
14 days (336 hours)	144 hours work time	2 x night rest breaks[2] AND 2 x night rest breaks taken on consecutive days

Powered Mobile Plant Operations

The definition of powered mobile plant can be described as any machine that is self-propelled and controlled by an operator.

Powered Mobile Plant (PMP) includes:

- Industrial Lift Trucks
- Mobile Cranes
- Telehandlers
- Earthmoving Front-End Loaders
- All-terrain vehicles

PMP is associated with several accidents and injuries that occur at workplaces, the most common being;

- Falls from;
- Crushing by;
- Run over by;
- Roll-overs of forklifts; and
- Entanglement in and being trapped between moving parts

Hazards

The most serious hazards associated with PMP are overturning and the operator being ejected or struck. In most cases injuries, including fatal injuries can be prevented with operator protective cage devices, secure seating, footrests and seatbelts.

Control of Risk

Risk to health and safety of any operator of powered mobile plant must be managed. Measures must be in place to prevent the plant from the following:

- Plant overturning
- Things falling on the operator of the plant
- The operator being ejected from the plant
- The plant colliding with any person or thing
- Mechanical failure of pressurised elements of plant that may release fluids that pose a risk to health and safety

Specific Controls, as far as reasonably practicable:

- A combination of operator protective devices for the plant is provided, maintained and used
- No other person other than the operator rides on the plant unless the person is provided with a level of protection that is equivalent to that provided to the operator
- Ensure that the plant does not collide with pedestrians or other powered mobile plant
- The Powered mobile Plant must have a warning device that will warn persons who may be at risk from the movement of plant

Control measures should be periodically reviewed to confirm their continued suitability. Common controls for the inherent risks of mobile plant can be found in the below table;

Control Measures	Examples of how to use control measures
Barricades	Separating pedestrian and traffic areas with physical barriers can prevent pedestrians entering areas where powered mobile plant is working.
Bollards or guard rails	These can be installed inside and outside on both sides of doorways used to minimise the risk of collision with the doorway, pedestrians, other vehicles or immovable objects. Bollards and guard rails should be clearly identified e.g., painted with black and yellow diagonal stripes.
Doors	Doors made of transparent material can assist visibility and minimise, so far as is reasonably practicable, the risk of collision.
Speed limits and speed humps	Apply work area speed limits and install speed limiting devices to control speed

Satisfactory lighting	This must be provided, so far as is reasonably practicable including in work areas where powered mobile plant operates. The area immediately inside a building where powered mobile plant enter should be well lit to avoid vision problems when passing from bright sunlight into a poorly lit area. Travelling in and out of covered areas creates a risk to operators who wear photo-chromatic glasses. These glasses darken as light intensity increases.
Ramps	These should be secure, robust, provided with edge protection, not exceed the manufacturer's specific gradient for operating the industrial lift truck and be installed at points where an industrial lift truck needs to be driven from one level to another.
Loading docks	Satisfactory edge protection or a system of work to minimise the risk of industrial lift trucks falling or being driven over the edge of a loading dock should be provided. The system could include clearly defined operating areas by line marking at least 2 metres from an exposed edge with the area between the line and the edge declared an industrial lift truck exclusion zone.

Seatbelts

Seatbelts and other restraint systems should be used when they are provided unless a risk assessment indicates it is not safe to do so and other risk controls are implemented. Seatbelts keep you in the cab during a tip over and prevent you from being thrown from your seat.

Passengers must not be carried on any Mobile Plant unless the Mobile Plant is designed to carry a seated passenger. The passenger's seat must be fitted with suitable seat restraints and located within the zone of protection that is provided by the operator protective device fitted to the Mobile Plant.

Measures in place to prevent objects from falling on the operator;

- Follow safe work procedures
- Use protective equipment correctly
- Fitted operator cages
- Ensure that no work is done overhead where PMP ops are conducted

Regular inspections of powered mobile plant should be undertaken and reports of any faults, wear or damage found should be made immediately.

Further information on the management of powered mobile plant can be sourced in Hydrera HSEP49 Powered Mobile Plant Policy

21. NOISE

Noise emissions to the environment and public

The risk of noise to the environment and public is a significant factor to preserving nature. To assist with noise, control the following measures must be followed:

1. Exhaust or muffler protection will be installed to all HYDRERA equipment to ensure noise levels are not greater than 85 dB (A).
2. All high generating noise equipment or works will not be conducted within the parameters of residential or protected environmental sites.
3. Efforts must be made to minimise noise levels in the immediate vicinity of other industrial sites where noise levels exceed 85 dB (A) for any significant periods.

Noise management is to be managed in accordance with the relevant state Environment Protection Act.

22. SPRAY PAINTING AND ABRASIVE BLASTING

Policy

Impacts to the environment associated with spray painting work and abrasive blasting are to be minimised by the application of sensible and practical measures to reduce risk.

All works will be completed in accordance with the EPA licensing agreement.

Under no circumstances are led based paints to be used by Hydrera.

Outdoor Spraying or Blasting

All Spray painting or abrasive blasting must be performed in a spray/blasting booth unless the work is minor e.g., touch-up painting or the item is too large to reasonably fit in a booth.

When spraying/blasting outside a booth, care must be taken to minimise the impact of over-spray or fall out of dust on personnel and the environment.

Employees must use personal protective equipment to limit exposure and the area isolated from workers not directly involved in the process. Where possible, pedestrian traffic must be directed up-wind of any outdoor spray or blasting work.

Spray/Blasting Booths

Where a spray/blasting booth is installed, it will be fitted with an adequate and effective exhaust and filter system and must be properly maintained.

Fire Safety

Flammable materials must be properly stored before use, and only reasonable minimum quantities of paints and thinners must be held in the immediate vicinity of the spray painting. Spray areas must be regularly cleaned of excess paint build-up. Adequate fire- fighting equipment must be provided in the vicinity of any spray-painting activities (including mixing).

23. WASTE

Hydrera will ensure that all waste materials generated on Hydrera or client sites are disposed in a safe manner and in accordance with the *Hydrera Environmental Policy* and EPA conditions and applicable legislative requirements.

All waste materials will be separated into its appropriate waste streams and disposed of by a licensed waste management company. Hazardous Waste materials will be accompanied by a Safety Data Sheet (SDS) and a completed Waste Manifest Form.

24. RECYCLING

Wherever possible materials that are removed from Hydrera sites shall be assessed for:

- Use within the project
- Use on other projects the company is involved in Sale to other companies for their use or
- Use by others to turn into useable materials.

The Department Manager is responsible for assessing the recycling possibilities in conjunction with the HSE department prior to works commencing.

25. FUGITIVE DUST

Hydrera will aim to reduce it dust emissions to the environment by establishing a Fugitive Dust Ranking Standard to be used in all areas of Hydrera sites to standardise dust emission level assessments and provide a risk-based approach to improvement by providing a consistent targeted standard and system to identify and prioritise activities for improvement.

Where dust is intentionally created (Abrasive Blasting), Hydrera will ensure it is using the compliant booth and filtration system to capture the dust emitting to the environment.

26. WEEDS

Weeds can be spread hundreds of kilometres if left unchecked. If a vehicle passes through a weed infested area seeds can become lodged in tyre treads and other crevices on the vehicle, only to be dislodged and dispersed into new areas.

Environmental weeds are plants that have a negative impact on our natural landscape, generally because of a reduction in biodiversity. Direct impacts occur when weeds out-compete native vegetation for water, light or soil nutrient.

All Hydrera employees operating Hydrera vehicles must comply in accordance with HYDRERA Weed Control Policy.

27. NATIVE VEGETATION

Native vegetation is those plants that would have grown naturally throughout Australia before European arrival including trees, shrubs, herbs and grasses. It does not include plants that originate from other countries.

Australia has a wide range of vegetation types described in terms of ecological vegetation classes. It is estimated that private land supports 30 per cent of the important locations for threatened species with 60 per cent of native vegetation types on private land currently threatened with extinction – via heavy industry, e.g., mining, oil & gas, etc.

Hydrera has a commitment to preserve the native environment it operates within. Hydrera employees operating equipment will not drive off tracks already designated for driving.

Any HYDRERA employee deliberately or maliciously damaging any part of the native environment will be disciplined in accordance with *HYDRERA Discipline Policy*.

28. RE-VEGETATION OF ENVIRONMENT

Where required, Hydrera will work in conjunction with the customer to minimize impact on the flora to assist when the customer is required to re-vegetate the work area back to its native state. To assist with minimising the damage on the environment in the time during operation, any incidents where the environment has been damaged must be reported and acted upon as soon as the incident occurs.

29. HAZARDOUS SUBSTANCES

Statement

The relevant state Work Health & Safety Acts and Regulations and Environment Protection Acts require organisations to ensure risks associated with foreseeable hazards are identified, assessed and effectively controlled through the integration of effective management of Work Health and Safety (WHS) to prevent injuries and to protect the environment.

Scope

This section has been included to describe, manage, monitor and review substance risks in the workplace.

Further information on hazardous substance management can be found in Hydrera HSEP20 Hazardous Substance Policy.

This section is based on the *"Storage and Handling of Workplace Dangerous Goods"*, National Code of Practice (NOHSC: 2017(2001)), and the *"Storage and Handling of Workplace Dangerous Goods",* National Standard (NOHSC: 1015(2001))

Risk Management Process

Hydrera undertakes a systematic approach to the Risk Management Process in the following manner:

<u>All chemicals entering HYDRERA' sites must be accompanied by a Safety Data Sheet</u> <u>(SDS)</u>

- SDS must be to the Australian Standard and provide information on substances; SDS must be obtained before use of the substance;

- SDS must be prepared and supplied by the manufacturer or importer of the substance and must clearly contain the name of the substance;
- Statement of hazardous nature; the Australian address of supplier; its recommended uses;
- its chemical and physical properties; its active ingredients;
- relevant health hazards;
- SDS must be reviewed and/or revised at intervals not exceeding five years; and
- SDS must be easily accessible for reference by any person.

Once the SDS have been received, a Risk Assessment must be undertaken on each chemical along with the work process when it is used.

The Risk Assessment will incorporate the *Hierarchy of Controls* for the safe use and storage of dangerous goods in the workplace. *Hierarchy of Controls* refers to a system of controls that minimises risk by modifying work process or work environment where reasonably practical, over controls that require behavioural change (e.g., Personal Protective Equipment (PPE)).

That is, by applying:

- Elimination of hazard;
- Substitution of hazard with lesser risk;
- Engineering controls including, modification to design such as guarding and mechanical ventilation;
- Administrative controls such as training of emergency procedures and safe work practices; and
- Personal Protective Equipment (PPE).

On completion of Risk Assessment and acceptance of chemical on to worksite, appropriate storage must be available for Dangerous Goods, as per guidelines in *"Storage and Handling of Workplace Dangerous Goods"*, National Code of Practice (NOHSC: 2017(2001)), and the *"Storage and Handling of Workplace Dangerous Goods",* National Standard (NOHSC: 1015(2001))

Objectives

To minimise the risks from hazards in the workplace by implementing hazard identification, risk assessment and control as part of effective Work Health Safety and Environmental (WHS&E) management.

An effective Hazard Management System is developed and implemented to identify, assess, control and monitor WHS&E risk and where reasonably practicable, eliminate the hazard.

WHS&E risks are eliminated where practicable or effectively controlled using a hierarchy of controls applicable to the level of risk and in accordance with legislative requirements.

Controls to minimise risks are implemented before commencement of work and that they are regularly monitored and reviewed to ascertain their ongoing effectiveness.

Where necessary, employees should be consulted throughout the hazard management process.

Strategies

To ensure these objectives are achieved Hydrera will:

- Provide the adequate financial and human resources to implement the hazard management process and control risks to WHS&E.
- Provide hazard management training for management and employees.
- Develop and implement procedures and tools to guide the identification, assessment, control, monitoring and review of risks in the workplace to ensure they are either eliminated, or where that is not reasonably practicable, minimised by the application of hierarchy of control measures.
- Develop and implement procedures to guide safe work methods and health surveillance of employees.
- Regularly audit the implementation of systems to manage risks.
- Where required by legislation, establish and maintain registers of areas of hazardous work, hazardous substances and other identified risks in the workplace (e.g., Risk Register, Hazardous Substances Register, Chemical Register, Asbestos Register, and Confined Space Register).
- Ensure contractors have systems in place to manage risks relating to their work.

Purchasing

No new chemical materials including Hazardous or dangerous goods are to be introduced to any Hydrera workplace without firstly undergoing a thorough assessment of risk and suitability for purpose. See HSEP26 Introducing Chemicals into the Workplace Policy.

Initial Assessment

Prior to purchase, all chemicals must be assessed for suitability and safety by the department manager and the HSE Manager.

Chemical samples must be submitted by the manufacturer/supplier:

- In the correct container which is labelled in accordance with the Approved Code of Practice for the Labelling of Workplace Substances.
- Accompanied by a compliant Safety Data Sheet (SDS) under the National Code of Practice for the Preparation of SDS.
- An Emergency Procedure Guide must be included in the SDS or supplied with all hazardous or dangerous substances

Product Trial

Prior to purchase, each product must be trailed under the supervision of a competent person as defined in legislation (i.e., a person who has been trained and/or has the experience in handling the product).

A thorough risk assessment must be undertaken during the trial to determine:

- If there are any special storage needs required
- If there is a real need for the chemical and it can be **eliminated** from the process

- If there may be a safer alternative that can be **substituted**
- Whether there needs to be **engineering controls** to **isolate** the chemical from workers
- What **administrative controls** (i.e., procedures) need to be developed and implemented
- What, if any **PPE** needs to be purchased to protect users from the chemical

*** Remember that the last two controls are only effective if the information, training and supervision processes are maintained. Regular review must occur to find a better solution than the last two controls.*

Safe Storage

Persons with responsibility for substances, and/or materials must ensure that they are stored in a safe manner.

Storage Areas

Storage areas must be maintained in safe condition taking account risks to employees/contractors from plant and materials falling, slips and trips, manual handling, chemical spills, fire and other emergencies.

Responsibility of Persons in Control of Storage Areas

Supervisors of storage areas must ensure good housekeeping, adequate lighting, and provision of appropriate shelving, sufficient lighting, clear signage, and effective Emergency Procedures. Where plant, substances or materials are being stored or removed, work practices must focus on use of mechanical lifting equipment and safe manual handling.

Hazardous Substances

Containers of hazardous substances must be clearly labelled and (SDS's must be readily available for all hazardous substances.

Dangerous Goods

Dangerous Goods (D.G) must be stored in accordance with relevant D.G legislation (including licensing where needed). Road and Rail must transport D.G in accordance with the Australian Code for the Transport of Dangerous Goods. All labelling must be in accordance with the Code.

Transport of Hazardous and Dangerous goods

If goods of a dangerous nature, including hazardous chemicals or substances, are to be transported, all required authorisation and permits must be acquired, and all drivers of dangerous goods shall have licences appropriate to the goods being carried.

Where this is not possible by Hydrera personnel or vehicles, a 3rd party supplier will be engaged to ensure that these goods are transported appropriately and safely.

Signage will be displayed on all vehicles carrying dangerous goods and will reflect the nature of the goods accordingly.

30. Hydrera Referenced Documents

HSEP60 - Environmental Policy
HSEP24 - Incident Reporting Policy
HSEF02 - Incident Report Form
HRP07 - Discipline Policy
HSEO04 - Risk Assessment
HSEP40 - Risk Management Policy

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General Manager
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