3

Plant item:	2.5T LPG FORKLIFT	Plant identification details (asset/fleet no.):	
Location/project:		Operator license/certificate required:	HIRE RESPONSIBILITY

All identified potential hazards have been assessed and appropriate corrective actions to reduce risks to acceptable levels identified and implemented.	**Assessed by: Emily Donney**	**Date: 20.7.2018**
	Reviewed by: Jim Byrnes	**Date: 20.7.2018**
Amended operating procedures incorporating corrective actions identified in this risk assessment issued and communicated.	**Amended by: Emily Donney**	**Date: 20.7.2018**
	Monitor and review by: Jim Byrnes	

PLANT DOCUMENTATION

Document type	Satisfactory Yes	Satisfactory No	Document type	Satisfactory Yes	Satisfactory No
Current State Certificate of Registration	N/A		All operators licences / certificates of competency current	X	
Pressure Vessel and Safety Certificates	N/A		Pre-start inspections carried out	X	
Plant Risk Assessment completed	X		Maintenance records sighted *	X	

*** Note: All long term "dry hire" plant and machinery must have Operator's and Maintenance Manuals, Pre-start checklists and Log Book provided by the plant owner.**

PLANT ACTIVITY TEST

	Activity	Areas of plant accessed	Activity performed by	Frequency of activity	Isolation required (Y or N)	WMS or document reference	Comments
A.	**Delivery and set up of plant on site**						
	Positioning		Operator	AR	Y	SWMS	
B.	**Operation (including inspection, pre-start checks, storage)**						
	Pre-use inspection		Operator	AR	Y	SWMS	
C.	**Service, maintenance and repairs (includes cleaning)***						
	Maintenance or repair		Fitter/Operator	AR	Y	SWMS	
D.	**Decommissioning / removal from site**						
	Inspection after use		Operator	AR	Y	SWMS	

* Include only those maintenance and servicing activities that will be carried out on site. Do not include service or maintenance elements that will be carried out off site.

Frequency of activity codes					
D	Daily	W	Weekly	2W	Fortnightly
M	Monthly	AR	As required	S	Required at start up/commissioning only

RISK ASSESSMENT

STEP 1:	Consider what might happen when a hazard is encountered (**consequences**), and how likely it is that an exposure to the risk(s) from the hazard will occur (**likelihood**).
STEP 2:	Use the risk level calculator to determine the **Risk Level** to persons who may be exposed to the hazards.
STEP 3:	Determine the most effective control measures. (Consult the hierarchy of risk control measures when carrying out this step).

RISK LEVEL CALCULATOR

LEVEL OF CONSEQUENCES	CONSEQUENCES OF EVENT OCCURRING *What is the likely outcome of an exposure to the risk?*	LIKELIHOOD OF EVENT OCCURRING		
		Likely	**Possible**	**Unlikely**
High **(High level of harm)**	Potential death; permanent disability; major structural failure/damage. Off-site environmental discharge/release not contained. Significant long-term environmental harm.	**1**	**1**	**2**
Medium **(Moderate level of harm)**	Potential temporary disability; minor structural failure/damage. On-site environmental discharge/release contained. Minor remediation required; short-term environmental harm.	**1**	**2**	**3**
Low **(Low level of harm)**	Incident that has the potential to cause persons to require first aid. On-site environmental discharge/release immediately contained. Minor level clean up with no short-term environmental harm.	**2**	**3**	**3**

LEGEND

LIKELIHOOD *How likely is it that an exposure will occur?*	
Likely	Could happen frequently.
Possible	Could happen occasionally.
Unlikely	May occur only in exceptional circumstances

RISK LEVEL	
Class/ranking	**Description/requirements**
1 (High)	Will require detailed pre-planning. Actions will be recorded on SWMS.
2 (Medium)	Will require operational planning; Actions will be recorded on SWMS.
3 (Low)	Will require localised control measures.

SELECTION OF RISK CONTROL MEASURES

The hierarchy of risk control measures must be applied when selecting appropriate risk controls. Controls are ranked from 1(best) to 6 (least effective). Elimination of the risk must be selected wherever possible (Qld) or reasonably practicable (other states), and the highest ranked lesser control selected only when a higher ranked control is not possible or reasonably practicable.

1	**Elimination**	Eliminate the hazard or risk completely
2	**Substitution**	Substitute the hazard or risk with a lesser risk
3	**Engineering**	Control risk by engineering methods
4	**Isolation**	Isolate the risk by enclosing or preventing access to the risk
5	**Administration**	Apply administrative controls (e.g., limit exposure, job rotation, rest breaks, etc)
6	**PPE**	Provide and use protective clothing and personal protective equipment

1. ENTANGLEMENT

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone's clothing, gloves, jewellery, necktie, hair, cleaning brushes, rags or other material become entangled in or be drawn into moving parts of the plant or materials in motion?	X		1	5	Follow safe working procedure.	2

2. CRUSHING

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be crushed due to -						
• Material falling off or from the plant?		X				
• Uncontrolled or unexpected movement of the plant or its load?	X		1	5	Follow safe working procedure.	2
• Lack of capacity for the plant to be slowed, stopped or immobilised?	X		1	5	Follow safe working procedure.	2
• The plant tipping or rolling over?	X		1	5	Follow safe working procedure.	2
• Parts of the plant collapsing?		X				
• Coming into contact with moving parts of the plant during testing, inspection, use, maintenance, cleaning, servicing or repair of the plant?	X		1	5	Follow safe working procedure.	2
• Being thrown off or under the plant?	X		1	5	Follow safe working procedure.	2
• Being trapped between the plant and materials or fixed structures?	X		1	5	Follow safe working procedure.	2
• Other factors?		X				

3. CUTTING, STABBING OR PUNCTURING

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be cut, stabbed or punctured due to -						
• Coming into contact with sharp or flying objects?	X		2	5	Follow safe working procedure.	3
• Coming into contact with moving parts of the plant during testing, inspection, use, maintenance, cleaning, servicing or repair of the plant?	X		2	5	Follow safe working procedure.	3

3. CUTTING, STABBING OR PUNCTURING (continued)

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be cut, stabbed or punctured due to -						
• Plant, parts of the plant or work pieces disintegrating?		X				
• Work pieces being ejected?		X				
• The mobility of the plant?	X		2	5	Follow safe working procedure.	3
• Uncontrolled or unexpected movement of the plant or its load?	X		2	5	Follow safe working procedure.	3
• Other factors?		X				

4. SHEARING

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can any person's body parts be sheared between two or more parts of the plant, or between a part of the plant and a work piece or structure?	X		1	5	Follow safe working procedure.	2

5. FRICTION

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be burnt due to contact with moving parts or surfaces of the plant, or material handled by the plant?		X				

6. STRIKING

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be struck by moving objects due to -						
• Uncontrolled or unexpected movement of the plant or material handled by the plant?	X		1	5	Follow safe working procedure.	2
• Plant, parts of the plant or work pieces disintegrating?		X				
• Work pieces being ejected?		X				

6. STRIKING (continued)

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be struck by moving objects due to -						
• The mobility of the plant?	X		1	5	Follow safe working procedure.	2
• Other factors?		X				

7. HIGH PRESSURE FLUID

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone come into contact with fluids under high pressure in normal use, or in the instance of plant failure?	X		2	5	Follow safe working procedure.	3

8. ELECTRICAL

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be injured by electric shock, or burnt due to -						
• The plant contacting live electrical conductors?	X		1	5	Follow safe working procedure.	2
• Plant working close to electrical conductors?	X		1	5	Follow safe working procedure.	2
• Overload of electrical circuits?		X				
• Damaged or poorly maintained electrical leads, cables or wiring?		X				
• Damaged or faulty electrical switches?		X				
• Water near electrical equipment?		X				
• Lack of isolation procedures?		X				
• Other factors?		X				

9. FIRE AND EXPLOSION

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Is there a risk of fire or explosion due to gases, vapours, liquids, dusts or other substances triggered by the operation of the plant or by materials handled by the plant?	X		1	5	Follow safe working procedure.	2

10. SLIPS, TRIPS AND FALLS OF PERSONS

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone using the plant, or in the vicinity of the plant slip, trip or fall due to -						
• Uneven or damaged work surfaces?	X		3	1	Repair any uneven surfaces	3
• Wet or slippery floor surfaces?	X		3	1	Take additional care in wet weather	3
• Poor housekeeping (such as swarf, shavings, dust, etc) in the vicinity of the plant?	X		3	1	Ensure the work area is kept clean and tidy	3
• Spills and leaks of liquids not cleaned up?	X		3	1	Ensure the work area is kept clean	3
• Obstacles being placed in the vicinity of the plant?	X		3	1	Ensure the work area is kept clean	3
• Other factors?		X				

11. EXTREMES OF TEMPERATURE

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone -						
• Come into contact with objects or surfaces at high temperatures?	X		2	5	Follow safe working procedure.	3
• Come into contact with objects or surfaces which are at very cold temperatures?		X				

12. TEMPERATURE AND THERMAL COMFORT

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone suffer ill health due to exposure to high or low temperatures?		X				

13. SUFFOCATION

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be suffocated due to lack of oxygen or atmospheric contamination?	X		1	5	Follow safe working procedure.	2

14. MANUAL HANDLING

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Does the task involve -						
• Repetitive body movements?		X				
• High-force actions?	X		2	5	Use correct manual handling practices.	3
• Other adverse manual handling factors?	X		2	5	Use correct manual handling practices.	3

15. OTHER HAZARDS

Hazard or risk	Y	N	Risk level (refer to risk matrix)	Control type (from hierarchy of risk controls)	What actions are necessary to eliminate or control the hazard or risk?	Risk level after controls are implemented
Can anyone be injured or suffer ill health from exposure to -						
• Chemicals?		X				
• Toxic gases or vapours?		X				
• Fumes?	X		2	5	Follow safe working procedure.	3
• Dust?		X				
• Noise?		X				
• Vibration?		X				
• Radiation?		X				
• Other factors?		X				

ADDITIONAL COMMENTS

TOPIC	COMMENTS
Manufactures Risk Assessment	**Certificate of Approval – Lloyd's Register – Certificate expiry date – 14th September 2018**

REVIEW OF PLANT RISK ASSESMENT

TOPIC	REVIEWED BY	DATE	APPROVED BY	DATE
Review plant risk Assessment	**Jim Byrnes**	**1/1/2019**	**David Masing**	**01/1/2019**