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Lifting Management

Plan

FBFV-Roma, QLD

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**Roma – Lifting Management Plan**

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# 1 Document Control

## 1.1 Review and Update Procedures

This document is a ‘live’ document that shall be reviewed and updated as per the Huracan Document Control and Review Standard.

# 2 Overview

## 2.1 Huracan Gerneral Code of Behaviour

Huracan Management requires full compliance with this plan. Failure to adhere to this document shall be regarded as a serious breach of the Huracan code of behaviour and shall result in disciplinary action, which may include counselling or dismissal. Failing to follow safety instructions, deliberately interfering with safety equipment and systems, deliberate damage to equipment, stealing, vandalism, fighting, practical jokes and horseplay shall not be tolerated and are considered to be serious breached of the Huracan Code of Behaviour.

## 2.2 Terminology

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Competent Person | A person who is suitably qualified (whether by experience, training or both) to carry out the relevant work or function. The person shall be able to detect and evaluate defects and weaknesses that may affect the intended performance of the equipment. Competency standards and or procedures shall include the requirements of Australian Standards; the verification of such competency standards shall incorporate an established competency based training course. Records shall be kept of such courses. |
| Crane | A machine for raising or lowering a load and moving it horizontally – does not include forklifts |
| Liting Device | Any device or piece of equipment equipped with mechanical means that will raise, lower, arrest or sustain a load in any working position. A lifting device can be manually, engine or power operated. |
| Vehicle Loading | A crane mounted on a vehicle or trailer to load and unload that vehicle or trailer, and which may be used for other lifting purposes within its rated capacity in accordance with the crane manufacturer’s instructions |
| In-Service | A visual inspection prior to each use. This implies that prior to each lift, the user has a good look over the equipment (sling, hook, lifting points) to ensure that there is no significant damage or wear, and that the WLL tag or markings are fitted and legible. At this point, if any defects are noted, the equipment should be tagged out of service, withdrawn from service, and inspected by a competent person who can make a decision on whether to use, repair or discard the item. |
| Periodic | Periodic inspections refer to a more careful and detailed inspection, where the equipment is cleaned, and inspected in an adequately lit location by an inspector who has been both trained and has verifiably good vision (this is s pecifically discussed in the Chain Sling standard). These inspections also need to be |

# 3 Statement of Plan

This document is intended to serve as the minimum Huracan requirements for management and mitigation of Lifting operations.

# 4 Objective

The objective of this procedure is to provide guidelines to the management of all-inclusive lifting devices and operations. This procedure is applicable across all operations and undertakings by Huracan management, workers, contractors and visitors inclusive of all work sites and entities.

# 5 Scope

This Lifting Management Plan applies at all times to all Huracan, contractors and third party personnel working or contracted to FBFV – Roma location.

# 6 Responsibility

## 6.1 Managers

All Managers with the integral support of HSE staff shall implement and enforce this local plan and demonstrate active leadership and participation in all aspects of the Lifting Management Plan while ensuring that all personnel under their responsibility demonstrates similar leadership.

## 6.2 Employees

All personnel to ensure the currency of all hard-copy documentation (as required) for the validation of lifting equipment as operationally required.

Complete relevant QHSE documentation (records of system implementation)

Participate in QHSE matters pertaining to lifting operations i.e. risk assessments, SOP review, permit familiarisation

Conduct lifting operations in accordance with their competence including pre-inspection of lifting equipment.

# 7 Procedure

## 7.1 Training and Competancy

All personnel conducting lifting operations or operating a specific plant shall be trained and competent to do so. In some instances, a national competency may be required, such as a high risk license to operate a forklift, or in other cases, the operator must be deemed competent such as a VOC performed. For Queensland, High risk Work Licenses are required for:

Boom-type elevating work platform – 11m or more

* the length of a boom is the greater of the following—

i. a) the vertical distance from the surface supporting the boom-type elevating work platform to the floor of the platform, with the platform extended to its maximum height;

ii. b) the horizontal distance from the centre point of the boom’s rotation to the outer edge of the

platform, with the platform extended to its maximum distance.

* Forklift truck (LF)
* Vehicle Loading Crane (capacity 10 metre tonnes and above)

Personnel required to conduct lifting operations shall be competent in the following non-high risk work licenses:

* Dogger (DG)
* Vehicle Loading Crane (CV) above 10t

## 7.2 Selection of Lifting Plant & Equipment

A trained, assessed and authorised person (relative to the lifting operation) must ensure the crane or lifting equipment is suitable for the task, including:

* For cranes approved for site use - a current equipment compliance label is displayed on the crane as per client requirements.
* For manually operated lifting devices – a maintenance register tag is located on the item.
* Lifting point SWL markings – all lifting points have the SWL clearly and permanently marked.
* Lift capacity within SWL - the load to be lifted (including any rigging) is within the capacity of the marked
* SWL of the lifting equipment.
* Lifting equipment - maintained in good condition (free from obvious signs of wear, damage or corrosion).
* Pre-start check – ensure completed.
* Equipment log book - available for inspection and all maintenance details are up to date.
* Operator’s manual – ensure available on site.

To ensure the appropriate rigging and lifting gear is utilised for the job / task, a trained, assessed and authorised person (relative to the lifting operation) must ensure:

* Equipment rating - correctly rated (SWL / WLL) equipment is selected for the lifting task. Allowance must also be made for de-rated rigging when reeving, shortening or similar is used.
* Inspection tag - current inspection tag is located on the equipment.
* Equipment condition – equipment is in good condition (free from obvious signs of wear, damage or contamination).
* Lifting lugs, eye bolts and similar (if applicable) – rated for use and in good condition, if required a dogger, rigger or fitter should be consulted.

## 7.4 Site Preparation

As part of the lift preparation, prepare the site and lift operational area as detailed in the following steps:

* Ground conditions must be assessed for suitability for the lifting operation by the crane or lifting equipment operator, including consideration of the following items:
* Surface conditions – consideration of weight of crane or lifting equipment, placement and stability of outriggers and bearing support or shoring requirements (as applicable).
* Surface slope – uneven, unstable or sloping of ground, including that affected by crane slewing or movement.
* Underground services – placement of underground services, cavities or excavations that could affect crane or lifting equipment stability.

Exclusion Zone Set / Barricading or appropriate access restrictions must be used where there is a potential risk of injury from the lifting equipment or the load falling or striking people. Appropriate barricading for the lifting operation may include the use of physical barricades, signs, warning lights, spotters or a combination of these controls. Consideration must also include:

* Lift operational area – prevention of unauthorised access with controls maintained at all times to prevent unauthorised entry and to ensure safety in the drop zone.
* Consider also manoeuvrability to ensure there is no requirement to walk / work under a suspended load EVER.
* Slew crane movement – swing area of the crane, boom, outriggers and similar.

Powerlines and obstacles must not be within the lift operational area. Inspection of the lift operational area must be completed to identify any of the following obstacles:

* Power lines – lift operational area is maintained outside of the exclusion zone of overhead or trailing power lines. If the lifting operation is within the exclusion zone, a permit and compliance with the requirements of the relevant Client’s processes and Procedures.
* Existing structures or obstacles – clearance from existing structure or obstacles such as buildings, high walls or other items must be assessed for the lifting operation or movement of cranes.
* Environmental conditions must be assessed, prior to and during the lift operation, and should include the following considerations, relevant to the work area:
* Dust and wind – possible reduction or changes in visibility, load control and load swing. Approved tag lines may be required for load control.
* Rain or moisture – including possible changes to surface conditions.
* Lighting - for the duration of the lifting operation to ensure appropriate lighting is maintained.
* Thunderstorm activity – if lightning is observed or thunder heard in the vicinity, retract and lower boom and cease the lifting operation.

## 7.5 Lifting Preparation

For all lifting operations, the following potential hazards must be considered, when applicable to the lifting operation:

* Hook safety and sling roll-out from hook. Load bearing hooks secure – safety catch to be fitted to all hooks.
* Load considerations as applicable for the lifting operation:
* Sling loading – equal load distribution (when multiple slings are used).
* Rigging angles – set within prescribed limits.
* Shackles – correctly installed and loaded.
* Sling hooks – correctly positioned to prevent hook roll-out.
* Crane hooks – correctly positioned to prevent load swing and movement when lifted.
* Communication between all members of the lifting crew. Primary communications - identify and validate, using approved communication methods including radios or hand signals.
* Load stability, protection and prevention of uncontrolled movement:
* Tag lines – approved tag lines must be used to prevent uncontrolled load movement, when applicable to the lifting operation.
* Load protection – packing and padding utilised to prevent damage to loads and lifting equipment.

## 7.6 Mobile Crane and Slew Cranes

For mobile cranes and slew cranes, the following additional requirements are applicable:

* Seat belt – ensure fastened at all times, when installed.
* Seat position – the operator is comfortable and can reach all required controls.
* Distractions – ensure cabin door is closed and there is no additional communication or distractions for the crane operator (other than for the lifting operation).
* Controls – ensure the crane is not left unattended with the engine running or with a suspended load.
* Dogger requirements – a mobile crane operator must not perform the role of a dogger for their own loads.

## 7.7 Vehicle Loading Crane Operations

For Vehicle Loading Crane (VLC) operations, the following additional requirements are applicable:

* The VLC must only be used with all stabilisers extended in accordance with the manufacturer’s
* instructions. Timbers or other pads specified by the manufacturer must be used under the stabiliser pads.
* Load control – if the load is out of the operator’s view at any stage during the lifting operation, the movement must be directed by a dogger.
* Level ground – the VLC must only be used so that it is level in accordance with the VLC manufacturer’s
* instructions.
* Operator position – the operator must be positioned to prevent the operator being crushed or trapped between the load, boom or vehicle.
* Controls – the VLC must only be operated from a position that prevents the boom or load being passed or lifted over the operator.

## 7.8 Inspection, Maintenance and Testing

All lifting equipment shall be inspected, maintained and tested in accordance with OEM recommendations and regulatory requirements, (in-service and periodic). Australian standards provide guidelines regarding the frequency of expected inspection as ‘periodic’ is not a definitive definition. Common ins pection frequencies adopted from industry best practice includes:

* Synthetic slings – 3 monthly, mandated by AS4497.2
* Winches, Blocks and Hoists – 12 monthly for general use, 3 monthly for intensive use
* Chain and Wire Rope Slings – 12 monthly for general use, 3 monthly for intensive use
* Chain Slings (Grade 80 & 100 Alloy)
* Proof tested by a competent person:
  + After manufacture
  + When damaged and when load bearing components have been replaced
  + When it is missing its tag

## 7.9 Inspection Frequency

Use the velow table as a guide for inspection frequency.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Periodic Inspection Guide for Alloy Chain Slings – T(80) or V(100)** | | | | |
| **# of lift cycles** | **Inspect** | **Inspect 3** | **Inspect 6** | **Inspect 12** |
| **per week** | **Monthly** | **monthly** | **monthly** | **monthly** |
| 1 to 5 | - | - |  | Yes |
| 6 to 25 | - | - | Yes | - |
| 26 to 200 | - | Yes |  | - |
| 201 + | Yes | - |  | - |
| NOTE: The above guide and the inspection schedule should be determined by the end user based on the duty cycle (of M3 as specified in AS1418.1) and the environmental conditions of use. | | | | |
|

## 7.10 Documentation (Permits & Lift Plans)

Huracan has included safe lifting activities with their Standard Operating Procedures (SOP’s) as required. Additional resource documentation may be required to execute the lifting operations safely including, but not limited to:

* Lifting Plan
  + A Lift plan outlines the lifting operation controls and should be prepared and discussed with all relevant parties and is mandatory on all lifts above 10 tone.
* Permit (Wellsite Permit to Work System)
  + A permit may be required for lifting activities including, but not limited to:
    - Complex or dual lifts,
    - Lifts where the rigger & the operator are out of sight from each other during the lifting activity;
    - Heavy lifts (85% or more of the rated capacity of the lifting device)
    - Lifting over areas where people cannot be excluded from, infrastructure and pipelines or in the vicinity of overhead power lines
    - Lifts using more than one lifting device
    - Or as directed by the Permit Authority (person responsible for the permitted activity.)
  + Where a lifting permit is required, a lift plan must be developed also.

# Appendix A - References

* Work Health Safety Act 2011
* Work Health Safety Regulation 2011
* Managing the Risk of Falls Code of Practice 2011
* Managing Risks of Plant Code of Practice 2013
* Mobile Crane (QLD) COP 2006
* AS 1353.1 – 1997 Flat synthetic-webbing slings Part 1: Product specification
* AS 1353.2-1997 Flat synthetic-webbing slings – Care and use
* AS 1418.1-2002 Cranes, hoists and winches – General requirements
* AS 1418.2-1997 Cranes (including hoists and winches) – Serial hoists and winches
* AS 1418.10 (Int)- 2004 Cranes, hoists and winches – Elevating work platforms
* AS 1418.5-2002 Cranes, hoists and winches – Mobile cranes
* AS 1418.5-2002/Amdt 1-20047 Cranes, hoists and winches – Mobile cranes
* AS 2550.1 – 2011 Cranes, Hoists and Winches - Safe use Part 1: General Requirements
* AS 3569 – 1989 Steel wire rope
* AS 2759 – 2004 Steel wire rope – Use, operation and maintenance
* AS 2741 – 2002 Shackles
* AS 2089-1993 Sheave blocks for lifting purposes
* AS 1666.1 – 1995 Wire-rope slings – Product specification
* AS 1666.2 – 1995 Wire-rope slings – Care and use
* AS 1138 – 1992 Thimbles for wire rope