



PTW CHECKLIST - NO. 29		Title: Lifting Operations Involving Crane or Hiab Onshore	
Owner: Capability Coordinator			
Approver: Capability Coordinator		Max Validity Period: 5 yrs	
Permit No.:		Date:	
Latest Rev	Date	Details	Authorised By
10.0	Jan 2016	Full revision	S Elliott
10.1	Aug 2017	Added Lifting Plan cover sheet requirement	M.Birdsall

Other Checklists That May Be Relevant: [24](#), [56](#), [57](#)

HRA Checklists:

REFERENCE DOCUMENTS:

Adverse Weather Guide. – [PRD-ACT03.003](#)

Lifting Accessory and Maintenance. [WI-EP72.03-625](#)

PRIOR TO PERMIT ISSUE:

Before any lifting commences, the correct class of lift is to be identified. The persons designated to the following positions are to be identified for all classes of lift and made known to all involved with the lift. They shall also hold the appropriate competencies as listed at the bottom of this checklist:

- PICOL* (Person In Charge Of the Lift) Name: _____ HSSE Critical Role
- Competent Rigger/Slinger* Name: _____ HSSE Critical Role
- Competent Dogman/Banksman* Name: _____ HSSE Critical Role
- Crane Driver Name: _____ HSSE Critical Role

* May be same person

NOTES:

- 1 All lifts will usually be a 3 person activity i.e. Crane Operator, Dogman & Assistant. For minor lifts e.g. using Hiab crane, the 3rd person may not be required and is at the discretion of the PI
- 2 This checklist does not cover drilling top drive systems, helicopter lifting operations or marine towing.
- 3 Nothing in this checklist shall be deemed as relieving any person from complying with the requirements of the STL Lifting & Hoisting Management Manual DOC ID – 9131538 and the OSH Approved Code of Practice (ACOP) for Load-Lifting Rigging.
- 4 Containers will normally be bottom lifted using appropriate container lifting lugs and equipment. Where this is not possible and access to the top lifting points is required, "Work at Height" procedures shall apply.

LIFT CLASSIFICATIONS – (Routine, Non-Routine, & Complex Lifts)

If the answer to any of the questions below is “yes” then the lift is classified as that type of lift and is subject to those requirements. If not proceed to the next classification.

COMPLEX LIFT

- | | Y | N | NA |
|---|--------------------------|--------------------------|--------------------------|
| • Are these lifts over <u>live plant</u> designated by Operations (ROS/PI) as <u>high risk</u> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • All lifts exceeding 90% of the crane/hiab Safe Working Load (SWL) at the working radius. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Any lifts exceeding 20 tonnes in gross weight. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Any lifts exceeding 10 tonnes in gross weight that requires rigging up on site or using non dedicated rigging equipment. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Any load transferred from one lifting appliance to another | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Any load lowered or lifted from a Confined Space | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is the lifting of personnel or use of Man-Riding winches involved | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Does the lift require two or more cranes or lifting appliances to place / remove the object to be lifted. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Loads where the Centre of Gravity (COG) is difficult to estimate, is not below the lifting point, or the load can rotate or overturn. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Unusual rigging and lifting arrangements are being used. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • The load weight is unknown or cannot be accurately estimated. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If the answer is No to all the above, proceed with a Non-Routine Lift.

- | | Tick when done | | |
|---|--------------------------|--------------------------|--------------------------|
| | Y | N | NA |
| • In addition to the above nominated roles, Nominate Operations Representative:
Name _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • An approved Lift Plan is appended to the permit.
This includes Lifting Plan cover sheet, drawings/sketches detailing the crane location, the load, lifting arcs and angles, the crane safe load charts and load lay down point. Specific lifting equipment shall also be listed and certificates supplied. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

NON-ROUTINE LIFT

- | | Y | N | NA |
|---|--------------------------|--------------------------|--------------------------|
| • Are lifts over or within 5m of live plant designated by Ops (ROS/PI) as <u>low risk</u> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is there limited head room or restricted access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Rough Terrain crane is on uneven ground or load is transported by crane | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • The load is very long, an awkward shape, or liable to be affected by wind. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If the answer is No to all the above, proceed with a Routine Lift.

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| • Nominate Area Operations Representative (if required by the PI):
Name _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|

- Lifting procedure is reviewed by the PICOL and a Lift Plan is appended to the Permit. This includes Lifting Plan cover sheet, drawings of the crane location, the load, lifting arcs and angles, the crane safe load charts and load lay down point. All lifting equipment required for the lift is listed with minimum capacity specified (Note: SO numbers and certificates not required).
- A hazard assessment has been conducted of the proposed route a crane is required to travel with a load suspended from its hook and within the manufactures specifications. The practice of travelling with suspended loads should be avoided if possible & the loads must be adequately secured.

ROUTINE LIFT

Tick when done

Y	N	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Any lift in "non process" areas or in a process area with perimeter of load more than 5 metres to adjacent plant and equipment

- Load has known weight, known COG and standard rigging arrangements
- The load is <90% of the normal operating parameters of the crane or hiab.

If the answer is yes to all of the above, proceed as a Routine Lift.

A Lift Plan is not required for Routine lifts. Detail to be included in JHA.

PREPARATION FOR ALL CLASSES OF LIFTS - PRIOR TO PERMIT ISSUE

- PI or AT have confirmed requirements for plant isolation / protection
- The following chart is to be completed and signed by the PICOL and crane driver (where multiple lifts are required, attach multi-lift chart).

	Value	PICOL	Driver
Lifting Radius (maximum)			
Boom Length			
Load Chart Using			
Crane Capacity (at maximum radius & boom length)			
Load Weight			
Estimated weight if actual weight not known			
Ground conditions checked and are suitable			
Load is not more than 90% of crane capacity (at working radius)	Yes No		

PRIOR TO COMMENCING TASK:

PICOL to confirm the following:

Tick when done

- Lift is ready to proceed in compliance with the lift plan where applicable.

Y	N	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- The methods of rigging, suspension, attaching/detaching and load stability have all been determined.
- All lifts can be carried out within the crane / hiab and rigging rated capacity.
- Ensure outriggers are fully extended.
- The crane is certified and within inspection date.
- Crane checks including limit alarms and safe load indicators have been checked and are functioning where appropriate.
- The initial and final load positions have been identified, with obstructions (light poles, scaffold, electrical lines etc) being brought to the attention of the crane drivers. This is to be discussed in the toolbox talk.
- The PICOL shall ensure that the lifting operation is safely within the limit outlined in the [Adverse Weather Guide PRD-ACT03-003](#).

List maximum wind speed _____

- If the scope or conditions changes, the lift shall be aborted, the PI / Engineer shall be informed, Lift procedures and JHA revised, and a new toolbox talk held.
- Signalling methods and communications agreed using a sole designated radio channel when the load is unsighted by the crane driver
- All rigging equipment ie slings, shackles, lever blocks, chain blocks, turfers etc have been inspected and are within certification date.
- Tag lines are to be used wherever possible to ensure control over the load is maintained.
- The lift area has been roped off and/or signs and barriers are erected to warn personnel in adjacent areas.
- Loads are not left suspended when the crane is unattended.
- Prior to the use of lifting lugs on manway flange closures, hatches or motors, Visual checks have been carried out by a Facilities Inspector or Mechanical Engineer.

Position/Role	Required Competencies And Qualifications (Unit Standards)	Competency held by (insert name)
Person-in-charge of lift (PICOL) Using HIAB	Must hold at least one of the following NZQA Unit Standards: <ul style="list-style-type: none"> • 26350 – Use common rigging equipment to lift and move loads • 9559 – Sling routine loads and communicate during crane operations in a petrochemical workplace 	
PICOL Crane or HIAB	<ul style="list-style-type: none"> • 3789 – Sling regular loads and communicate during crane operations 	
Person-in-charge of lift (PICOL) For Complex Lift	In addition to the above competencies at least one of the following is required for a Complex Lift: <ul style="list-style-type: none"> • 3799 – Plan and direct complex lifting operations • 9561 – Manage the lifting and placing of complex loads on a petrochemical offshore installation • National Certificate – Intermediate Rigging Level-3 which includes Unit Standards 4214, 4215 & 4216 	
Dogman/ Banksman / Rigger / slinger	Must hold at least one the following NZQA Unit Standards or STL approved equivalents: <ul style="list-style-type: none"> • 26350 – Use common rigging equipment to lift and move loads • 9559 – Sling routine loads and communicate during crane operations in a petrochemical workplace • 3789 - Sling regular loads and communicate during crane operations 	
Crane Operator Onshore	<ul style="list-style-type: none"> • Have passed a crane operator course from an approved training facility, appropriate to the type and capacity of crane they will be required to operate <p>Must hold ALL the following NZQA Unit Standards or STL approved equivalents:</p> <ul style="list-style-type: none"> • 3788 Demonstrate knowledge of skills required in the crane industry • 3787 – Demonstrate knowledge of regulatory requirements pertaining to cranes • 3795 – Configure mobile crane and lift and place loads <p>Alternatively, hold the following:</p> <ul style="list-style-type: none"> • National Certificate in Crane Operations (Mobile) 	
Truck Mounted Crane/Hiab/Side Loader Operator	<ul style="list-style-type: none"> • Have passed a crane operator course from an approved training facility, appropriate to the type and capacity of crane they are operating and or hold at least one of the following two Unit Standards as appropriate to the unit they are operating • 16617 – Use a truck loader crane to lift and place loads • 1754 – Operate truck-mounted load lifting equipment. <p>Must hold at least one of the following NZQA Unit Standards or STL approved equivalents:</p> <ul style="list-style-type: none"> • 26350 – Use common rigging equipment to lift and move loads 	

	<ul style="list-style-type: none"> • 9559 – Sling routine loads and communicate during crane operations in a petrochemical workplace • 3789 – Sling regular loads and communicate during crane operations 	
Overhead Gantry Crane Operator (>10 tonne SWL)	<ul style="list-style-type: none"> • Must have passed an overhead crane operator training course appropriate for the equipment being used or have been assessed in the use of the equipment by an independent party and hold the following Unit Standards • 3800 – Operate a pendant controlled overhead crane and lift and place regular loads • 3789 – Sling regular loads & communicate during crane operations 	