



Petroleum Development Oman L.L.C.

Specification for Lift Planning and Execution

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ii Revision History

The following is a brief summary of the 4 most recent revisions to this document. Details of all revisions prior to these are held on file by the issuing department.

Version No.	Date	Author	Scope / Remarks
Version 0	Sep-2007	Hugo den Boogert, UEC/14	New Lift Planning /- Execution procedure – Initial Issue
Version 1	Sep-2011	Hugo den Boogert UEQ/3	Amendments reflecting input users
Version 1.1	May-12	Robin Norman UOP6	Added Interim Amendment 1709_0412_01
Version 1.2	June-15	Hugo den Boogert UEQ/31	Added Interim Amendment 1709_0615_02
Version 0	Feb-2018	Rabani, Fahad UEQ/31	Revised entirely to SP
Version 1	Nov-2018	Rabani, Fahad UEQ/31	Added App. 4 & 5 for incorporating requirements for Forklift operations

iii Related Business Processes

Code	Business Process (EPBM 4.0)

iv Related Corporate Management System (CMS) Documents

The related CMS Documents can be retrieved from the Corporate Management Portal (CMS).

The related CMF Documents can be retrieved from the Corporate Business Control Documentation Register [TAXI](#).

Design:	CP-117 Project engineering
Procurement:	CP-129 Contracting and Procurement CoP PR-1233 Contracting and Procurement Specifications
Lifting and Hoisting:	SP-2275 Lifting and Hoisting equipment inspection and testing requirements
Maintenance:	CP-114 Maintenance Code of Practice
HSE:	PL04 HSE Policy SP-2000 Road Transport SP-1143 Specification for Earthmoving and Construction Equipment CP-122 HSE Management System SP-1242 Activities within Vicinity of Overhead Power Lines



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1 Introduction

1.1 Purpose

This document provides a specification to be used for lifting operational practices.

The key to safe lifting operation is having qualified personnel using the correct equipment in a safe manner. This specification will outline the issues relating to the selection of the correct people for the task. It will describe the operational practices to be used by these people as part of a safe and effective crane and rigging program.

This specification prohibits a person from riding or travelling on the load, lifting hook, sling, platform or other lifting medium.

This specification doesn't cover earth moving machinery.

1.2 Changes to the Specification

Responsibility for the upkeep of the Document shall be with the Functional Production Manager UEQ, the Owner. Changes to this document shall only be authorised and approved by the Owner.

Users of the Document who identify inaccuracy or ambiguity can notify the Custodian or his/her delegate and request changes be initiated. The Requests shall be forwarded to the Custodian.

The Document Custodian on behalf of the Document Owner shall ensure review and re-verification of this procedure every 5 years.

1.3 Scope

This specification applies to all functions performing lifting or lowering operations, rigging operations in all company locations. And it is applicable to all lifting categories.

2 Process Definition

Company	: Petroleum Development Oman LLC (PDO)
AP	: Appointed Person
ABA	: Accrediting Bodies Association
IPAF	: International Powered Access Federation
LEC	: Lifting Equipment Controller
MEWP	: Mobile Elevator Work platform
NPORS	: National Operator Registration Scheme
PIC	: Person in Charge
RTITB	: Road Transport Industry Training Board
ALARP	: As Low As Reasonably Practicable
RCI	: Rate Capacity Indicator
RCL	: Rate Capacity Limiter
PTW	: Permit to Work
SWL	: Safe Working Load



3 Role and Responsibilities

3.1 Operation Managers (Company)

Operation Managers shall ensure in all cases where lifting equipment is being Used, that:

- All risks arising from operations involving lifting equipment are suitably and sufficiently assessed by a competent person and appropriate control measures implemented.
- All lifting operations are suitably planned, supervised and carried out in a safe manner.
- Planning of a single lift or series of lifts shall address the risks identified by the risk assessment and that appropriate control measures have been implemented (safe systems of work, lifting plans etc.)
- All relevant information, training and instruction are given to users of lifting equipment and they are competent to carry out those tasks.
- All persons using lifting equipment shall work within the agreed safe working practices, reference information, instruction and training given.
- There is a system for the reporting and removing from use any lifting equipment that has developed a fault or defect.

3.2 Appointed Person

A person who have been appointed or been given the responsibility for planning lifting operations shall have sufficient technical, practical and theoretical training, knowledge and experience of the work they are likely to safely plan /assess the lift.

And he shall:

- Have a valid ABA certification as appointed person.
- Be responsible for planning lifting operation.
- Be capable of identifying the hazards and risks associated to lifting operations within their area of work or the environment where the lifting operation will take place.
- Be able to select the correct lifting equipment for the work. Understand the characteristics of the lifting equipment they are selecting and the nature of the work it will be carrying out.
- Carry out and document risk assessments (lifting operation) or site surveys; have the ability to communicate their findings to those involved in and affected by the lifting operations.
- Be able to create method statements or lifting plans and implement safe systems of work for lifting operations.
- Where appropriate seek additional support and expertise including the use of external specialists to assist them with the planning of lifting operations.
- Only approve routine lift plans.

3.3 Lifting Supervisor

Persons who have been authorized to supervise lifting operations shall:

- Have sufficient technical, practical and theoretical training, knowledge and experience of the work being carried out.
- Have a valid ABA certification as lifting supervisor or a crane supervisor.



- Be briefed and instructed on the outcomes of the risk assessment and fully understand the requirements of the lifting plan for the lifting operation to be carried out and an understanding of all those involved in the task.
- Supervise all non-routine lifting operations.
- Monitor a sufficient number of lifting operations to ensure correct working practices are being followed.
- Where appropriate direct lifting operations, offering clear instructions to those involved.
- Be able to assess changes in circumstances e.g. ground conditions, and where appropriate stop a lifting operation if the risk is unacceptable or if it is considered unsafe to carry on.
- Referring the concerns to their manager, competent person or person responsible for planning lifting operations.
- Conduct a tool box and discusses the 10 questions for safe lift.

3.4 Operator

Shall:

- Not attempt any lifting operation or use lifting equipment, without prior training/assessment, guidance and appropriate supervision or which is beyond the level of their competency.
- Have a valid ABA certification as an operator for the specific machine.
- Ensure that both routine and non routine lifting operations are not undertaken without a suitable and sufficient risk assessment being carried out by a competent person.
- Ensure they fully understand the lifting equipment, be familiar with how it operates and the proposed lifting operation(s) they have been authorized to do and that safe systems of work, training, guidance and advice are followed at all times.
- Carry out pre-use checks of lifting appliances prior to use, to ensure there are no obvious visual defects.
- Have an understanding of the emergency specification relating to lifting appliances in use and take part in training and periodic drills, where appropriate.

3.5 Slinger and Signaller / Rigger and banks man

Shall:

- Not attempt any lifting operation or use lifting equipment, without prior training/assessment, guidance and appropriate supervision or which is beyond the level of their competency.
- Have a valid ABA certification as Slinger and Signaller or Rigger and banks man
- Carry out pre-use checks of lifting accessories prior to use, to ensure there are no obvious visual defects.
- Choose the correct lifting accessories for the lift.
- Inspect the load to be lifted.
- Place slings/accessories on the load to be lifted.
- Give signals to the crane operator.
- Move load in a safe manner.
- Remove slings and accessories.
- Inspect lifting accessories (Post check).



- Play the role of lifting supervisor in routine lift ONLY.

3.6 Executing party

- To identify lifting parameters needed to execute the work.
- To prepare a lift plan and to ensure that a risk assessment is carried out.
- To source a certified lifting equipment from registered contractor/operator under their current contract.
- To constantly monitor the approved plan and identify improvement for future work.

3.7 Lifting Equipment Controller

Every site shall appoint a competent lifting Equipment Controller and shall:

- Have a valid ABA certification as LEC.
- Issue lifting accessories.
- Accept returned accessories.
- Maintain loft register.
- Ensure lifting accessories is certified.
- Be responsible for loft and quarantine area.

4 Competence

- COMPANY employee or contractor personal shall not perform or participate in lifting operations unless they are trained and certified to a standard that meet the minimum acceptable competency as defined by COMPANY specification SP-1157.
- The minimum required level of competence is ABA accreditation or IPAF for mobile elevator only.
- Anyone intend to participate in any lifting operations shall have a valid ABA card that indicating his competency. Refer to section 2 Role and responsibilities.
- Where an individual has not yet meet the defined level of competency or if under development plan shall only working under direct supervision at all time.

5 Definition

5.1 Lifting operations

A lifting operation is an operation concerned with the lifting and lowering of a load. A load is the item or items being lifted which could include material or people. A lifting operation shall be performed manually or using lifting machine.

5.2 Lifting Equipment:

Lifting Appliances and lifting accessories which carries out the actual lifting function and shall have a valid third party certification only as per SP2275.

5.3 Lifting appliances:

Lifting appliances includes any appliances or machinery used at work for lifting or lowering loads or people. There is a wide range of lifting appliances in the industry. Lifting appliances examples are: hoist devices, cranes, a tele handler, fork lift trucks, an aerial work platform (MEWPs), boom lift truck, lifting beam, containers, sheave, etc.



5.4 Lifting accessories

Lifting accessories means a component or equipment are attached to the lifting machinery, allowing the load to be held, which is placed between the machinery and the load or on the load itself. These accessories include amongst others chains, ropes, slings, shackles, eyebolts and open wedges, etc.

5.5 The load

The load includes any material and people (or any combination of these) that is lifted by the lifting equipment. Loads are often provided with permanent or semi-permanent fixed or attached points for lifting. In most cases, these are considered to be part of the load. Examples of loads include:

- Loose bulk materials
- Sacks, bags, pallets and stillages
- Discrete items (such as a large concrete block)
- Machinery and any permanently attached lifting eyes
- Lugs fixed to its side.

6 Lift Planning and Execution

Before performing any lifting, the executer party shall plan and prepare for the task. They shall make sure that they know where they are going, that the area is clear of obstacles and they have a good grip on the load. This includes training of the workers on how to handle loads correctly.

6.1 Site Survey

It is essential that a survey be conducted to establish details of load to be lifted i.e. weight, size, type of lifting lugs etc., details of the ground conditions, lifting route the access route. The survey shall be completed by a competent person(s).

6.1.1 Risk Assessment

The site survey is an ideal time to begin a risk assessment of the proposed lifting operations that will be carried out. The aim of the risk assessment is to prevent incidents and/or accidents that arise from hazards during the lifting operations. With the identified hazards, the risks posed by these hazards can be reduced to as low as reasonably practical through the implementation of control measures, using the principle of the hierarchy of controls.

6.1.2 Lift Plan

A competent person shall only initiate the lift plan. A lift plan shall be prepared or identified for every lift. The lift plan comprises amongst others:

- Calculations / drawing.
- Lifting equipment required details.
- Personnel required and their particular roles.
- Risk assessment.
- Step-by-step instructions with specific task risk assessment.
- 10 questions for a safe lift.



- Communication methods to be used.
- Minimum required lift planning data is shown on the acceptable lifting plan format at Appendix 01).

6.2 Categorizing Lifting Operations

There are generally two types of lift, Routine and Non-Routine. Categorizing the type of lift before planning the lift and documenting in a lifting plan is critical because it allows for the proper assessment of the amount of risk present in the lifting operation and the level of control required in mitigating the risks involved.

6.2.1 Routine Lifts - low rate

Routine lifting operations shall be executed under a routine lift plan. These plans shall clearly define the limitations on the loads, lifting methods and areas of operation. A Risk Assessment will be required in each case, and authorized prior to commencement. Prior to any lifting operation commencing, a review of the lift plan shall be conducted. A Routine Lift is a lift which conforms to the following factors:

- Routine crane operations
- Repetitive lifting operations using the same appliances (eg. drilling activities), same competent operator, and with same lifting accessories.
- Gross load represents less than 50% of the load chart at working radius with gross load is less than 5 tones.
- Within the normal operating parameters of the crane.
- Suitable environmental conditions.
- Load has known and evaluated weight, shape and centre of gravity.
- Standard rigging arrangements.
- Centre of gravity has been identified and it is below the lifting point.

Note: Routine lifting operations require the above factors to be considered but this list is not exhaustive. The risk of each individual lift shall be separately considered prior to classifying the lifting operation as a routine one.

6.2.2 Non-Routine Lifts

Non- Routine lifting operations will require a more detailed Lifting Plan that is containing all of the elements as described within these specifications. The plan shall be approved by company lifting department prior to commencement of any Lifting Operation and any deviation (MoC) requirement identified from the plan, shall also get the approval of the company lifting department prior to commencement of the lifting operation.

6.2.3 Non-Routine simple lift – Medium Rate:

- Gross load is equal to 5 tonnes and less than 75 tones with gross load represent less than 75% of the load chart at the working radius.
- Single lifting appliance.
- Unlikely to be affected by changing environmental conditions.
- Standard rigging arrangements.
- The lift in an area with restricted head room for the lifting appliance.
- The exerted load applied to the ground between 40% - 59% of the documented site Ground Bearing Capacity.
- The lift blind or conducted within a confined space, trench or excavation.
- The load has an offset CoG or has a large sail area.

- The load has a CoG above the lifting points or a high CoG or the potential to become unstable.

6.2.4 Non-Routine complex lift – High Rate:

- The lift involves lifting or lowering personnel.
- Gross load is greater than 75 tones or gross load represents more than 75% of the load chart at working radius.
- Use of two or more Lifting Appliances (tandem lifting).
- Over or in sensitive areas – active or energized hydrocarbon-containing process equipment, near overhead electrical power lines or within restricted area.
- Transferring the load from one lifting appliance to another (tailing lift).
- In environmental conditions likely to affect appliances performance.
- Load with unknown / difficult to estimate weight and / or centre of gravity.
- Load is special and / or expensive whose loss would have a serious impact on production operations.
- Non-standard rigging arrangements.
- The crane will move position whilst lifting a load.
- Using a fixed lifting system (overhead crane, runway beam or davit etc.) is the percentage of utilization above 95%.
- The exerted load applied to the ground between 60% - 75% of the documented site Ground Bearing Capacity.
- Lifting Over Live Plant see Sec 6.3

Note: Non-Routine lifting operations require the above factors to be considered but this list is not exhaustive.

6.3 Execution

Lifting shall not be carried out unless all risks have been documented and mitigated / reduced to ALARP, following controls shall be considered in all lifting activities:

- A defined lift categorization system, utilizing at least three categories, shall be used to identify the complexity of lifting operation.
- All lifting operations shall have a documented and approved risk assessment and lifting plan
- Loads shall be positively connected to the lifting appliance
- Ground Bearing Pressure (GBP) of loads / lifting appliances shall be documented on lifting plans and shall not exceed 75% of the site Ground Bearing Capacity (GBC)
- Overturning/load integrity/need for tag lines.
- A methodology to disconnect the lifting tackles at elevated level.
- Contingency and rescue plan is in place.

6.3.1 Communication of Lift Plan

Prior to starting of lifting operations the lifting supervisor shall hold a Toolbox Talk with all personnel is involved in the lift. Application of the '10 questions for a safe lift' to the lift shall be covered during the Toolbox Talk (Appendix 02).

The lifting supervisor shall be clearly identified and made known to all members of the lift team and personnel in the proximity.

Signaller is responsible of lifting movement by maintaining the communication with crane operator and slinger. Signaller shall be identified by wearing visible vest.



All personnel involved in the lifting operation shall be cleared with their individual responsibilities clearly allocated.

All personnel shall have the opportunity to review the findings of the risk assessment and the details of the Lift Plan to ensure that everyone clearly understands and agrees with the methods and control measures to be used.

6.3.2 Conducting the Lifting Operation

Lifting operations shall be conducted in strict accordance with the approved Lift Plan. Any variation from the agreed Lift Plan shall result in the job being stopped and re-approved to ensure continued safe operation. (Management of Change specification)

The Lifting Appliance Operator shall obey an emergency stop signal at all times, no matter who gives it.

The appropriate load-radius chart for the Lifting Appliance configuration in use shall be available and visible to the operator in case the RCI/RCL is not available.

Load to be lifted shall be confirmed to be free to lift and within the rated capacity of the Lifting Appliances and attached by means of suitable Lifting Accessories.

The Operator of the Lifting Appliance shall not leave the operating controls while the load is suspended.

Certified appliances shall be only used. All lifting appliances shall comply with SP-2275.

6.4 Lifting of personnel

- Prior to starting any Lifting Personal Operation, minor variations shall be documented to take account of current conditions (e.g.) wind speeds, wave height, position of people and deck layout).
- The appliances used for lifting personnel shall be specifically designed for man lift purpose i.e. Mobile Elevator Platform and shall be certified and shall not be used for any other purposes and supported by thorough risk assessment.
- All involved personnel shall be qualified and understand the lift plan and the risks involved.
- Lifting supervisor up/set down areas shall be of an adequate size and free from hazards affecting access and egress from the carrier.
- Environmental and other limits for personnel lifts shall be set out in the lift plan with clarity on where they differ from limits for other lifting.
- In case of any changes in job scope or conditions, the job shall be made safe and stopped, risks re-assessed and a pre-job meeting executed before the job is restarted. Examples of such changes include operating/weather conditions, day or night operations or changes in personnel or appliances involved.
- Personnel lifts shall only be conducted where there is line of sight (full visibility) between the appliances operator and signaller, and between the signaller and the person being lifted.

6.4.1 Man Riding Winches

Ideally, Man riding winches shall be avoided and replaced for other suitable, engineered and certified alternatives. However if it is unavoidable, and used under the PTW, then the following requirements shall apply for man riding winches:-

- Shall be restricted to 150Kg.
- A communication with all involved parties during operation.
- Shall be equipped with non-rotating wire rope.



- Shall have two brakes.
- Shall have limiting switches for High and Low levels.
- Shall not exceed monkey board level.
- No freefall system.
- Shall have emergency lowering system
- Shall have Slack line prevention system
- Shall be certified.

Note: All other operations shall be ceased during the Man riding winch operation. The winch shall be operated by a competent person only.

6.4.2 Requirements of using Lifting Appliances that are not designed for Personal lift

Using lifting appliances which have not been specifically designed for lifting people i.e. cranes shall only occur in exceptional circumstances, e.g. for rescue purposes or there is no other alternative to access. And shall be specifically approved by COMPANY Lifting Engineer and supported by thorough risk assessment, Job Hazard analyzes.

lifting or lowering personnel shall be rated as non routine High-Rate .The plan shall be approved by the COMPANY lifting engineer prior to commencement the lifting operation and any deviation requirement identified from the plan, shall also get the approval of the COMPANY lifting Engineer prior to commencement of the lifting operation.

A rescue plan shall be prepared for all personnel lifts as part of the lift plan. All appliances required to implement the rescue plan shall be readily available prior to and during the lift. Rescue plans shall be practiced at regular intervals. Note that rescue operations can introduce their own hazards; therefore the planning and execution of rescue exercises requires particular care and attention including additional risk assessments. A test lift without personnel shall be carried out where there is confined access, potential for snagging or other hazard.

6.4.3 General requirement

- Suspended baskets only to be used in exceptional circumstances, when there are no alternatives and has to be approved by the COMPANY operation manager in writing.
- Lifting of Personnel shall only be conducted within daylight hours, unless approved by the operation manager in consultation with the Lifting Engineer
- Lifting of personnel regardless of lift environment shall be considered as a high risk operation and be categorized as complex lift high rate.
- Lifting of personnel shall only be used when it is not practicable to gain access by a less hazardous means, rigorously risk assessed and fully managed in accordance with strict specifications.
- Lifting of personnel shall only be carried out when the risk of personnel falling from a Carrier, or being crushed, trapped or struck while being transported in a carrier has been mitigated to as low as reasonably practicable.
- Rescue plan shall be developed, implemented and effectively communicated.
- Rescue appliances shall be certified, readily available and operational at the lift location before the Lifting Operation starts.
- Lifting Appliances for Lifting Personnel shall be thoroughly examined periodically examination at least every 6 months.
- Roles and responsibilities are assigned and coordinated.
- Radio communication shall be established prior to commencing Lifting Operations.
- Procedure is in place for radio communication failure.
- Visual contact is maintained throughout Lifting Operation.



6.4.4 Crane shall be

- Designed in accordance with BS: 13000.
- Meet the requirement of BS: 7121-2-3.
- Crane shall have valid inspection certificate at least six month.
- Crane shall be designed to lift or to lower at least a load equal to 125 % of the rated capacity.
- Brakes shall apply automatically when the driving power supply or the power supply to the control circuit is interrupted in any way (e.g. emergency stop) and stop the man basket within a distance of 0.1m.
- Brakes shall be designed and manufactured in such a manner as to ensure smooth application so that the man basket is not subject to any dangerous stresses even under emergency conditions.
- Crane is fitted with two distinct mechanisms for preventing the load from falling, one of which shall be self-acting/fail safe. Any free-fall possibility shall be locked out.
- Wire rope and termination shall be in accordance with EN 13411-6, non rotational type only.
- Rope drums shall be grooved. There shall be a minimum of three dead turns on the drum in its lowest position.
- The hydraulic power system shall conform to EN 982.
- Pressure limiting valve(s) shall be fitted in every hydraulic circuit to provide protection against excess of pressure.
- Load bearing hydraulic cylinders shall be fitted with a device to prevent unintended movement caused pipe/hose rupture.
- Where two cylinders operate in parallel, a valve system shall be provided to ensure that in the event of loss of pressure to one cylinder the other cylinder shall be protected against overload.
- The maximum operating speed of man basket s shall not exceed 0.5 m/s.
- Crane shall have a load limiting device, which at a load 110 % of the sum of the rated capacity and the weight of the man basket shall prevent the hoist from starting.

6.4.5 Crane Operator shall

- Be competent for the task to a standard recognized by the Lifting Engineer.
- Be briefed in the operation to be performed.
- Check prevailing weather conditions, ((e.g.), wind speed, sea-state) to conform to criteria listed in the specification s/lift plan.
- Perform a trial lift without personnel prior to the actual lift.
- Perform a Pre Use Inspection of the crane prior to the Lifting Operation.

6.4.6 Passengers being lifted shall

- Be briefed clearly by the lifting supervisor.
- Have been trained and / or have experience of personnel lifting.
- Have been trained in self-rescue from height equipment.
- Have been briefed on all aspects of personnel lifting.



6.4.7 Basket shall be:

- Suitably designed to a standard recognized by the Lifting Engineer
- Constructed and certified for the purpose of personnel lifting.
- Marked with a SWL, that it is suitable for personnel lifting and the maximum number of passengers Securely attached to the crane, (e.g.), by safety pin, four part shackle, positive lock hook)
- Fitted with a redundant sling, acting as secondary retention, if applicable.
- Fitted with internal handrails to prevent hands / fingers being trapped if the basket swings against an obstruction
- Fitted with a roof to protect personnel, if there is a risk of falling objects
- Fitted with slip resistant floor
- Fitted with internal anchor points for safety harnesses Fitted with inwardly opening doors and have a locking mechanism to prevent inadvertent opening
- If required Personnel Baskets shall fitted with integral ladder for access / egress.

6.5 Working platforms (non-integrated) on forklift trucks

Forklift trucks are primarily intended for lifting materials not people. Hence non-integrated working platforms are not permitted under any circumstance. However, only integrated one is allowed.

6.6 Reacting to changing conditions

All critical lifting parameters such as for instance weather, visibility, ground stability and slope, surrounding operations and installations, site access and egress, Lifting Equipment, personnel and so on, shall be identified during the risk assessment and preparation of the Lift Plan.

The lifting supervisor shall ensure that these conditions are monitored as lifting operations proceed to ensure continued safety.

If, as part of the operation and maintenance of equipment, the computer system for instance shuts down the operation, the load shall be placed on the ground and a new lift plan shall be developed, eliminating the condition that caused the shut down.

Specification for recovering and landing the load in the event of the lift being aborted shall be clearly identified.

6.7 Assembly and De-assembly of Mobile Hydraulic, Crawler Cranes & Tower Cranes

The Assembly and De-Assembly of cranes is correctly classified as” High Risk Activity”. Many accidents and indeed in many cases there are more accidents resulting in injury and fatality during these 2 phases of a lifting operation than what occur during the actual lifting process.

Assembly and De-Assembly present many challenges and generate many hazards and associated risks. During these phases of any lifting operation extreme caution and vigilance are required. Much heavy work and working at height is required, particularly where larger capacity cranes are in use. Careful documented planning of Hazard and Risk Analysis is required.

De-assembly also brings the added factors of rushing at the end of a lift to get clear of the site, equally after a lift is complete and in many cases the crane operator is left to his own devices and alone to

Complete the task, folding up the Fly – Jib on a small hydraulic is every bit as dangerous as taking of the luffer on a large crawler. Whilst all phases of a lifting operation require focus, vigilance, monitoring and control, the elements of Assembly and De-Assembly are very



easily overlooked and taken for granted. Appointed Persons/ Lift Supervisors shall ensure that the lifting team is alert and familiar with all hazards, associated risks and implemented control measures. Once the assembly is completed the crane shall be thorough examined followed by load test.

7 Specific Requirements for Execution of Lifting Operations

7.1 Operating Near Overhead Electric Power Lines and Cables

If any part of a crane, including rope, slings or load, touches or even approaches overhead electric lines or cables there is a serious risk of fatal accident. The work shall be performed so there is no possibility of the crane, load line or load becoming a conductive path.

In general, the LIFTING SUPERVISOR shall ensure that the crane does not operate within: 15 meters plus the maximum achievable boom length, measured horizontally, for overhead lines on steel towers; or 9 meters plus the maximum achievable boom length, measured horizontally, for overhead lines on wood, concrete.

Additionally, the lifting supervisor shall consider:

- Isolation of electricity if possible
- Contacting the electricity provider
- Weather – effect on the safe working zone
- Use of physical barriers e.g. goal posts

Cranes shall not be used to handle materials stored under electric power lines unless any combination of boom, load, load line or machine component cannot enter the prohibited zone. Overhead lines and other electrical apparatus shall be considered live unless declared 'dead' and 'safe' by the Line Operator. Crane Operators shall not rely on the coverings of wires for their protection.

Where the possibility of contact with energized power lines exists then durable signs shall be installed at the operator's station and on the outside of the crane warning that electrocution or serious bodily injury shall occur unless minimum clearances are maintained between the crane or the load being handled and energized power lines.

See also SP-1242 Activities within vicinity of overhead power lines, which have to be strictly adhered to.

7.2 Night operations

Generally Night lift operation to be discouraged, only allowed after specific permission by COMPANY operation manager. Following precautions have to be considered:

- Lifting by night or when there is not sufficient visibility is not allowed for complicated lifts and tandem lifts. They are not to be carried at by night or shall not start when the lift cannot be completed before dark.
- All lifts at night which shall be treated as non-routine.
- Adequate lighting has to be ensured. All access and escapes to be clearly illuminated.
- Ensure emergency lighting as a backup is available. Assembly point is clear and defined.
- Signalling arrangements to be reviewed (instead of hand signals use radio).

7.3 Lifting Over Live Plant

Lifting over live plant is defined as a complex lifting operation, where there is a risk of the load, lifting appliances and/or lifting accessories impacting, damaging and/or rupturing live

plant. Also Live plant is defined as equipment containing hazardous, pressurized, energized or strategic resource, for example: pipes or vessels containing hydrocarbons, electrical cables or primary power generation units such as turbines and generators and their exhaust systems.

- Lifting over live plant shall not be carried out unless all risks have been documented and mitigated/reduced to ALARP and it has been established that there is no other feasible option
- All lifts executed over live plant shall have an operational contingency plan documenting how to control the effects of any loss of containment, fires, explosion, electrocution, loss of production, environmental contamination etc.
- Lifting over live plant operations shall fall within the highest rate of category in the system (critical lift)
- Defined exclusion zones shall be documented, applied and be relative to the identified risks

8 Handling of tubular

Executer party is responsible to select the right means to lift, handle and transport tubular. All controls i.e. lift plan, risk assessment... etc shall be in place prior any operation.

Key elements and practices for the safe operation of slinging tubular or tubular bundles are:

- Only tubular of the same diameter or size and about the same length shall be bundled together.
- Tubular shall always be slung with two slings, each of the same length and of the same SWL
- Always secure the tubular if they are subjected to transport by forks.
- Slings shall be placed positioned at equal distance (approximately 25% of total length) from the ends of the load. They shall be double wrapped and choked around the tubular either when using wire rope slings or webbing slings.
- Care shall be taken to ensure that the choking eyes are placed on the same side of the tubes to avoid twisting of tubes if choked from opposite directions.
- The sling shall be of sufficient length to ensure that the choke is on the sling body, never on the sling splice, fittings, tag, eye or at the base of the sling eye or fitting
- Excessive long tubular bundles shall have a tag line attached. This shall be subject to a JHA
- Whilst loading, consideration shall be given to the installation discharging sequence
- Ensure thread protectors and end caps are securely fastened
- Slings shall not cross under the load to avoid damage to the sling.
- Prior to making any lifts, the release of rigging shall be considered. Precautions are
- Are required to prevent personnel from being trapped between tubular.

9 Mobile Crane Operations

9.1 Daily / Pre-Use Inspections

These inspections shall be performed and documented by a qualified operator prior to first use each day or shift the truck is used. These checks ensure that appliances is working correctly by carrying out function tests prior to any lifting operations.

A VALID INSPECTION CERTIFICATE SHALL BE AVAILABE IN THE EQUIPMENT.



- During operation, the crane shall not be left unattended.
- The lifting supervisor shall obtain information on wind conditions prior to starting and during a lifting operation.
- The lifting supervisor shall ensure that the ground (soil test), or any means of support, can sustain loads imposed by the crane
- Side loads shall be avoided.
- When sitting a crane, point loads through the outrigger / stabilizer beams and jack pads shall be spread over a sufficient area to support the outrigger pad and to prevent the crane overturning or becoming unstable.
- While in transit the boom shall be retracted and carried in line with the direction of motion and the superstructure secured against rotation (or the boom placed in a boom rack mounted on the carrier).
- The empty hook shall be lashed or otherwise restrained so that it cannot swing freely.
- If the crane has a telescopic boom it shall be set to the fully retracted position.
- Counterweights shall be properly secured.
- Ensure wheel chocks are used to block movement on slopes.
- Cranes shall not be used for dragging or pulling a load.
- For normal operation wind conditions shall not exceed 12.5 m/s (24 Knots).
- At commencement of the first lift the Lifting Appliance Operator shall carefully check the operation of the hoist brake to ensure no slippage occurs.

10 Powered Industrial Trucks including Fork Lift Trucks (FLT)

10.1 Daily / Pre-Use Inspections

These inspections shall be performed and documented by a qualified operator prior to first use each day or shift the truck is used. These checks ensure that appliances is working correctly by carrying out function tests prior to any lifting operations.

A VALID INSPECTION CERTIFICATE SHALL BE AVAILABE IN THE EQUIPMENT.

10.2 Operations

During operations, the Operator shall:

- Drive at speeds appropriate for the existing conditions (space, load, lighting, surface conditions, etc.) and at or below posted limits
- Keep all parts of the body inside the Operator compartment during operations
- Not start or operate the truck or any of its attachments from any place other than from the Operators position.
- Ensure other personnel are not in the swing radius prior to performing turning manoeuvres.
- Sound the horn when approaching cross aisles, doorways and other locations where pedestrians shall step into the path of truck travel.
- Verify sufficient headroom under overhead installations, lights, wiring, pipes, sprinkler systems etc
- Ensure they are driven on suitable surfaces. Road humps and rough or soft surfaces are to be avoided.
- Movement with loads in excessively raised positions shall not be carried out to avoid the danger of toppling, especially on uneven surfaces and while cornering
- Shall only be used for loads, which can be carried safely on the forks or attachments

fitted.

- Long tubes shall be carried using appropriate OEM approved attachments. Loads shall not be suspended from forks by means of slings.
- Authorized personnel shall only operate powered industrial trucks
- Appliances shall not be loaded beyond its rated load (capacity).
- Trucks shall not be driven up to anyone standing in front of an object.
- Only approved industrial trucks shall be used in areas classified as hazardous locations.
- Driving rough terrain FLT's on public roads shall be kept to a minimum. When public road travel is necessary, fork arms shall be removed, folded or protected in some way so that they do not present a hazard to other road users. Where this is not possible, forks shall be painted or otherwise made highly visible
- Rough terrain FLT Operators shall wear seat belts while driving their vehicles.

11 Mobile Elevator Work Platforms

11.1 Daily / Pre-Use Inspections

These inspections shall be performed and documented by a qualified operator prior to first use each day or shift the truck is used. These checks ensure that appliances is working correctly by carrying out function tests prior to any lifting operations.

A VALID INSPECTION CERTIFICATE SHALL BE AVAILABE IN THE EQUIPMENT.

11.2 Operations

Personnel lifting devices and mobile aerial platforms shall be operated according to applicable

Government requirements and manufacturers' instructions. The following practices shall be followed:

- Determine through JHA process that the proposed personnel lifting operation is either the least hazardous method or the only method available to position personnel so that an operation can be accomplished.
- Personnel shall:
 - Keep all parts of the body, tools, and components inside the work platform periphery during raising, lowering, and travelling operations
 - Hold onto a moving platform using both hands
 - Secure tools and other objects in canvas bags or by other methods so that both hands are free and do not present a snagging hazard. Alternate methods of tool delivery beside personnel lifting devices shall be investigated
 - Wear fall protection with a lanyard attached to an authorized lanyard anchorage point. Attach only one (1) lanyard per lanyard anchorage point
 - Detailed technical operating specification s describing personnel lifting device operation, emergency steps, communication requirements, and special requirements shall be prepared
 - Personnel lifting device or mobile aerial platforms shall not be loaded beyond its rated load (capacity).
 - Consideration shall be given to prevailing environmental conditions (e.g. wind as indicated by manufacturer), as well as aspects of the device (e.g. sail area) before commencing operations



11.3 The following additional requirements shall be followed for mobile aerial platform operations:

- **Survey the area for applicable hazards such as:**
 - Overhead obstructions and high-voltage conductors;
 - Debris, bumps and loose obstructions, drop-offs, holes, ditches, open earth fills, obstructed path of travel, unstable footing, and other possible hazardous conditions.
- **Electrocution Hazards**
 - For work on or near electrical distribution and transmission lines, mobile aerial platforms shall be operated in accordance with the applicable national and or local standard e.g. ANSI/SIA ASME standard
 - Note: for non-insulated platforms it is recommended that the following sign is posted: 'This machine is not insulated and does not provide protection from contact or proximity to electrical current'
 - Maintain safe distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the Minimum Safe Approach
 - Distance (MSAD) as shown in Table 1-1;

Table 1-1. Minimum Safe Approach Distances (M.S.A.D)

Voltage Ranges (Phase to Phase)	Minimum Safe Approach Distances in Feet (Meters)
0 to 300V	AVOID CONTACT
Over 300V to 20KV	10 (3)
Over 50KV to 200KV	15 (5)
Over 200KV to 350KV	20 (6)
Over 350KV to 500KV	25 (8)
Over 500KV to 750KV	35 (11)
Over 750KV to 1000KV	45 (14)



**DO NOT MANEUVER MACHINE OR PERSONNEL INSIDE PROHIBITED ZONE (MSAD).
ASSUME ALL ELECTRICAL PATRS AND WIRING IS ENERGIZED UNLESS KNOWN
OTHERWISE**

- Insulated mobile aerial platforms shall be tested and inspected in accordance with the applicable standard e.g. BS EN 61057 or ANSI/SIA ASME standard;
- Stow boom and shut off all power before leaving machine
- When two or more persons are in the platform, the Operator shall be responsible for all machine operations
- Do not place boom or platform against any structure to steady the platform or to support the structure
- Keep both feet firmly positioned on the platform floor at al times. Never use ladders, boxes, steps, planks, or similar items on platform to provide additional reach
- Never use the boom assembly to enter or leave the platform



- Do not use machine as a ground for welding
- When performing welding or metal cutting operations, precautions shall be taken to protect the chassis from direct exposure to weld and metal cutting spatter
- Do not refuel the machine with the engine running
- Charge batteries only in a well ventilated area

- **Tipping Hazards**
 - The user shall be familiar with the surface before driving. Do not exceed the allowable side slope and grade while driving
 - Personnel Platforms/Carriers shall not be elevated whilst on a sloping, uneven, or soft surface. Personnel shall not be driven with the platform elevated
 - Before driving on floors, bridges, trucks, and other surfaces, check allowable capacity of the surfaces
 - Never exceed the maximum platform capacity. Distribute loads evenly on platform floor
 - Do not raise the platform or drive from an elevated position unless the machine is on firm, level surfaces and evenly supported
 - Keep the chassis of the machine at least 2 ft. (0.6m) from holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards on the floor/surface
 - Do not push or pull any object with the boom
 - Never attempt to use the machine as a crane. Do not tie-off machine to any adjacent structure
 - Do not operate the machine when wind conditions exceed 12.5 m/s (24 Knots) or as prescribed by manufacturer, local legislation and or specifications
 - Do not increase the surface area of the platform or the load. Increase of the area exposed to the wind will decrease stability
 - Do not increase the platform size with unauthorized deck extensions or attachments
 - If boom assembly or platform is in a position that one or more wheels are off the ground, all persons shall be removed before attempting to stabilize the machine. Use cranes, forklift trucks, or other appropriate appliances to stabilize machine and remove personnel

- **Crushing and Collision Hazards**
 - All operating and ground personnel shall wear approved headgear
 - Check work area for clearances overhead, on sides, and bottom of platform when lifting or lowering platform, and driving
 - During operation, keep all body parts inside platform railing
 - Use the boom functions, not the drive function, to position the platform close to obstacles
 - Always post a lookout when driving in areas where vision is obstructed
 - Keep non-operating personnel at least 6 ft. (1.8m) away from machine during all driving and swing operations
 - Limit travel speed according to conditions of ground surface, congestion, visibility, slope, location of personnel, and other factors, which shall cause collision or injury to personnel
 - Be aware of stopping distances in all drive speeds. When driving in high speed, switch to low speed before stopping
 - Travel grades in low speed only
 - Do not use high-speed drive in restricted or close quarters or when driving in reverse



- Exercise extreme caution at all times to prevent obstacles from striking or interfering with operating controls and persons in the platform
- Be sure that operators of other overhead and floor level machines are aware of the aerial work platforms presence
- Disconnect power to overhead cranes
- Warn personnel not to work, stand, or walk under a raised boom or platform
- Position barricades on floor if necessary.

12 Learning and Record

After completing the lifting operation, everyone involved in the lift shall have the opportunity to discuss and make improvements to the Lift Plan. Any learning points noted on the plan shall be reviewed by a competent person and, where appropriate, action taken. Learning points shall include feedback on equipment effectiveness, lifting techniques, personnel, etc.

13 Application and Step-out

13.1 Application

This Lift planning specification is applicable to all lifting operations including the COMPANY and its contractors. As such, this document is mandatory and shall be adhered to by all parties, involved in lifting operations.

14 Step-out and Approval

Any step-out from this specification shall be addressed to the COMPANY lifting department in writing. It will be reviewed and authorized if the deviation in exceptional circumstances.

15 Appendices

Appendix 1, Lift plan



METHOD STATEMENT FOR LIFTING OPERATION

PROJECT			
ACTIVITY			
CONTARCTOR			
Lifting Category	Routine / Non routine	Location / RIG No	
PERMIT NO:		Total weight	
OBJECTIVE	To ensure the safety of the personnel/ equipment/ asset involved in lifting activities		
MAN POWER	<ul style="list-style-type: none"> Deploy individuals with valid certifications (Crane operator, lifting supervisor & riggers) A designated lifting supervisor (person in charge PIC and banks man) 		
RESPONSIBILITIES	<p>Banks man / Signaller: Co-ordinate the lifting movements and maintains radio- and/or visual communication with crane operator and persons close to the load</p> <p>Slinger /Rigger: Inspect the rigging, select rigging to suit the load, install the accessories and connect/disconnect the load</p> <p>Lifting supervisor (PIC): Co-ordinate and control all aspects of lifting operations on site. (Banks man can be the lifting supervisor if he is competent)</p> <p>Crane Operator: Pre-use inspection of crane and rig up of the crane; operating the crane and perform the lift in a safe manner taking the signals from the Banks man / Signaller only, unless in an emergency situation.</p>		
LIFTING EQUIPMENT	<ul style="list-style-type: none"> Lifting Appliances and lifting accessories which carries out the actual lifting function and shall have a valid third party certification only as per SP2275. 		



<p>PROCEDURE as per SP-2273 Lift Planning and Execution</p>	<ul style="list-style-type: none"> • Position the crane as close as possible to the load • Barricade the location • Verify the load chart and ensure that the distance between load and crane are in the safe limit. • Fix the load to the crane hook using the correct method of rigging depending on the shape of the load • Gradually lift and hold for a while to ensure the stability of load and crane • If stable execute the lifting operation. • Ensure that a single banks man is communicating with the operator • Ensure that the hook is disengaged only after the load is positioned and secured properly.
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10 QUESTIONS FOR A SAFE LIFT

NO	DESCRIPTION	Yes	No
01	Is everyone aware of and do they fully understand the lifting procedures?		
02	Has everyone attended the toolbox talk?		
03	Has a pre-use inspection of the Lifting Equipment been carried out and are the Lifting Accessories tagged or marked with: - Safe Working Load - A unique identification number - A valid certification date		
04	Are all safety devices working?		
05	Does everyone know the lifting supervisor of the lift?		
06	Is everyone competent and aware of his or her tasks?		
07	Is there a current Lift Plan and risk assessment and does everybody understand the job and precautions?		
08	Is everyone aware about environmental limits (e.g. maximum permissible wind speed) for the lift?		
09	Is the lift area controlled and is the lifting path clear?		
10	Are signalling methods and communication agreed and understood?		

<p>Attachment</p>	<ul style="list-style-type: none"> • Sketch/calculation of lifting plan mentioning load, radius, boom length and capacity of crane. • Load chart • Risk assessment* • Lifting crew competence cards • Lifting equipment are certificates i.e. cranes and lifting gears. <p>*For Non routine operation step-by-step instruction with a specific TRA shall be attached.</p>
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Note: Never start any lifting operation until all concerned have been briefed in a Pre-Start Meeting, ensuring that they understand their role and responsibilities and that they have signed onto the Permit-to-Work or record of attendance at the Pre-Start Meeting.

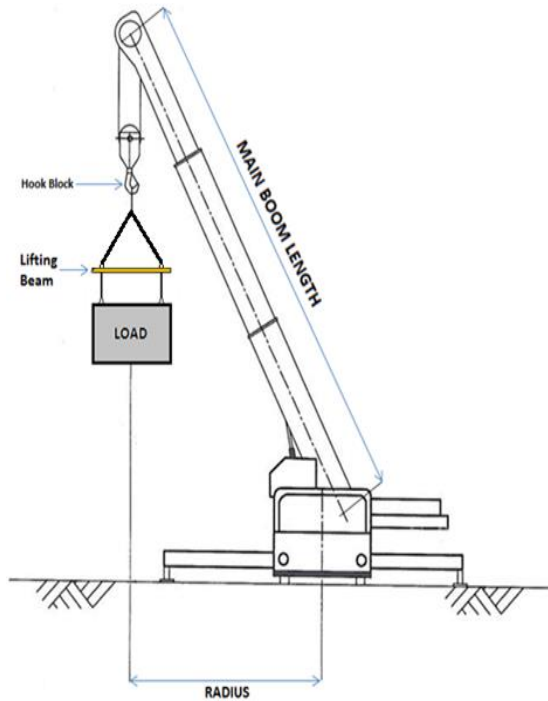
Acknowledgment:

We acknowledge that have verified this method statement against the activities stated in this statement without any deviation. This method statement will be discussed during the (TBT) discussion.

	Name	Signature	Date
Lift plan preparer			
Lift plan reviewer			
Approved by			



Appendix 2, Calculation drawing.



S.NO.	Description	Unit	Value
1	Weight of the lifted load (Load)	tones	
2	Lifting Beam	tones	
3	Hook blocks weight	tones	
4	Lifting Shackles & slings	tones	
*	Total weight	tones	

S.NO.	Description	Unit	Value
1	Total weight as per above *	tones	
2	Main boom length	m	
3	Counter weight	tones	
4	Radius	m	
5	Net Capacity of crane	tones	
6	% of chart capacity used *	%	



Appendix 3, Hazard and Effects Management Process (HEMP)

<ul style="list-style-type: none"> Defective lifting equipment 	<ul style="list-style-type: none"> Injury to personnel Damage to equipment 	4	C	M	<ul style="list-style-type: none"> Ensure lifting equipment (appliances and accessories) has valid certification Ensure that lifting accessories are correctly color coded Inspect equipment prior to use Ensure equipment is regularly maintained Follow manufacturer's instructions 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response
<ul style="list-style-type: none"> Incorrect use of lifting equipment 	<ul style="list-style-type: none"> Injury to personnel Damage to equipment 	4	C	M	<ul style="list-style-type: none"> Riggers, banks men, lifting supervisor, crane operator etc. shall be competent and qualified 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response
<ul style="list-style-type: none"> Abrupt movements 	<ul style="list-style-type: none"> Injury to personnel Damage to equipment 	4	B	M	<ul style="list-style-type: none"> Load to be lifted/lowered carefully Watch out for objects in the way of the load Operator to follow the signals of the banks man 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response
<ul style="list-style-type: none"> Unstable, uneven ground 	<ul style="list-style-type: none"> Injury to personnel Damage to equipment 	4	C	M	<ul style="list-style-type: none"> Position crane on stable and even ground Ensure the outriggers are set correctly Use mats under the outriggers to distribute ground pressure Keep sufficient distance from the edge of trenches Ensure riggers, banks man, lifting supervisor, crane operator are qualified 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response
<ul style="list-style-type: none"> Improper handling of load 	<ul style="list-style-type: none"> Injury to personnel Damage to equipment 	3	C	M	<ul style="list-style-type: none"> Check suitability of crane position in relation to radius, boom length and load chart Make sure load down area is safe In case of loading a vehicle ensure its position is suitable Ensure correct and certified rigging is used Use tag lines to avoid swinging of the load Lift the load carefully 10-20cm before proceeding Ensure riggers, banks man, lifting supervisor, crane operator are qualified/certified Ensure crane operator will follow signals of banks man Direct supervision 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response



<ul style="list-style-type: none"> Suspended load 	<ul style="list-style-type: none"> Injury to personnel / fatality Damage to equipment 	4	C	M	<ul style="list-style-type: none"> Personnel never to be allowed under suspended load or within swinging radius No tools, food or drinks to be allowed near moving crane parts Use tag lines to avoid swinging of the load Cordon off area Restrict area to and limit number of authorized persons Crane operator shall not leave controls unattended Never leave load unattended Direct supervision 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response
<ul style="list-style-type: none"> Overloading crane 	<ul style="list-style-type: none"> Injury to personnel / fatality Damage to equipment 	4	C	M	<ul style="list-style-type: none"> Ensure correct capacity crane is selected Ensure load computer is working correctly Ensure load charts and boom angle indicator are available SWL, inspection and next due date are displayed prominently on the boom Load only to be lifted vertically Load not to be dragged Crane not to be operated on a slope Do not lift loads with unknown weight and centre of gravity Use correct and certified rigging (correct color coding) Do not override (load) safety devices Inspect equipment prior to use Strictly adhere to lift plan Direct supervision 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response
<ul style="list-style-type: none"> Inadequate work space / Congested area 	<ul style="list-style-type: none"> Injury to personnel / fatality Damage to equipment 	4	C	M	<ul style="list-style-type: none"> Plan the work to avoid congestion and conflicting tasks in that area Ensure adequate space is available to work and manoeuvre crane and vehicle Parking not to be allowed in the area Provide proper storage area Maintain good house keeping Use only qualified/certified riggers, banks man, lifting supervisor, crane operator Direct supervision 	L	<ul style="list-style-type: none"> Emergency escape route First aid Emergency response



<ul style="list-style-type: none">Insufficient communication	<ul style="list-style-type: none">Injury to personnel / fatalityDamage to equipment	4	C	M	<ul style="list-style-type: none">Use only qualified/certified riggers, banks man, lifting supervisor, crane operatorEnsure it is clear who is the lifting supervisorEnsure banks man is easily recognized by wearing a colored vestEnsure banks man signals are understood and followedRestrict area to and limit number of authorized persons	L	<ul style="list-style-type: none">Emergency escape routeFirst aidEmergency response
<ul style="list-style-type: none">Bad weather	<ul style="list-style-type: none">Injury to personnelDamage to equipment	3	C	M	<ul style="list-style-type: none">Follow strictly crane manufacturers requirements for wind speedStop work	L	<ul style="list-style-type: none">Emergency escape routeFirst aidEmergency response



Appendix 4, Forklift lift plan



**Petroleum Development Oman
L.L.C.**

METHOD STATEMENT FOR FORKLIFT OPERATION

LOCATION			
ACTIVITY			
CONTARCTOR			
CAPACITY		With attachment?	YES / NO
DATE OF INSPECTION		Are attachments certified?	YES / NO
OBJECTIVE	To ensure the safety of the personnel/ equipment/ asset involved in lifting activities		
MAN POWER	<ul style="list-style-type: none"> • Forklift operator with valid certifications • A rigger and bank man with valid certifications 		
RESPONSIBILITIES	<p>Forklift Operator: Pre-use inspection of forklift, operating the forklift and perform the lift in a safe manner taking the signals from the Banks man only, unless in an emergency situation.</p> <p>Rigger and Bank man: Co-ordinate and control all aspects of lifting operations on site. Co-ordinate the lifting movements and maintains communication with the operator</p>		
EQUIPMENT	<ul style="list-style-type: none"> • Forklift shall be certified as per SP-2275 		



10 QUESTIONS FOR A SAFE LIFT

NO	DESCRIPTION	Yes	No
01	Is everyone aware of and do they fully understand the lifting procedures?		
02	Has everyone attended the toolbox talk?		
03	Has a pre-use inspection of the forklift been carried out and marked with: - Safe Working Load - A unique identification number - Inspection date		
04	Are all safety devices working (if applicable)?		
05	Does everyone know the supervisor of the lift?		
06	Is everyone competent and aware of his or her tasks?		
07	Is there a current Lift Plan and risk assessment and does everybody understand the job and precautions?		
08	Is everyone aware about environmental limits for the lift?		
09	Is the lift area controlled and is the lifting path clear?		
10	Are signalling methods and communication agreed and understood?		

Attachment	<ul style="list-style-type: none"> • Risk assessment • Equipment certificates • Lifting personnel permits • Specific task risk assessment (If applicable)
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Acknowledgment:

We acknowledge that have verified this method statement against the activities stated in this statement without any deviation. This method statement will be discussed during the (TBT) discussion.

	Name	Signature	Date
Forklift operator			
Prepared by			
Approved by			



Appendix 5, Risk Assessment for Forklift operation

Hazards	EFFECT	CONTROL MEASURES	Action by
Fire	Injury to Personnel Damage to equipment	<ul style="list-style-type: none"> • Portable fire fighting equipment and signs • Fire doors to avoid fire propagation • Signs and instruction on fire action to be taken • Fire alarm • Smoking only in designated areas 	
Electrical Systems	Injury to Personnel	<ul style="list-style-type: none"> • Electrical installations and devices are maintained and in good condition • Correct selection and use of equipment • Portable Appliance Testing • Training, supervision and instruction provided to all those required to complete battery care and maintenance • Trainees always under close supervision 	
Electrical Equipment	Damage to equipment		
Chemicals	Injury to Personnel Damage to equipment	<ul style="list-style-type: none"> • PPE available and used by all those required to complete battery care and maintenance – inspected regularly for wear • PPE available for diesel re-fuelling activities or gas bottle exchange etc • Training supervision and instruction provided to all those required to complete battery care and maintenance and diesel and gas re-fuelling where appropriate • Trainees always under close supervision 	
Manual Handling	Injury to Personnel Damage to equipment	<ul style="list-style-type: none"> • Good Housekeeping • Safe proper Storage • PPE available e.g. gloves for moving of pallets 	
Fall Hazards	Injury to Personnel Damage to equipment	<ul style="list-style-type: none"> • Firm, level ground and non slippery surfaces • No leads, cables or goods left in pedestrian routes etc • No climbing on equipment/loads/vehicles or unauthorised working at height • All equipment parked in designated areas • Round and unsymmetrical objects. 	



Hazards	EFFECT	CONTROL MEASURES	Action by
Falling objects	Injury to Personnel Damage to equipment	<ul style="list-style-type: none">All pallets/loads are checked periodically for security and positioningLoad storage and racking systems are checked periodically for integrity and any signs of damageAll lifting accessories are checked in accordance with local regulations and the lifting planBroken or unusable stock is removed and destroyedFull supervision (Person in Charge) provided during lifts etcPipes and round objects secured properly.	
Inappropriate Forklift Truck operations	Forklift operator	<ul style="list-style-type: none">Appoint a trained Forklift operator	
Vehicle Loading	Injury to Personnel Damage to equipment	<ul style="list-style-type: none">Loads are inspected for movement during transport before restraints are removedRoad vehicle is securely parked and driver is aware of the operationThe area is controlledPedestrians are kept clear	
Dust or Fumes	Injury to Personnel Damage to equipment	<ul style="list-style-type: none">Adequate ventilationAdequate PPE	
Lift Trucks	Injury to Personnel Damage to equipment	<ul style="list-style-type: none">Operators are suitably trained and appropriately experiencedNo equipment is used until a pre-use inspection is conductedKey control measures are in place and adhered toOperational areas are restricted accessTrucks are serviced annually and thoroughly examined in accordance with local regulationsAnyone in the operating area must be authorised and wear Hi-Viz vests at all timesNo pedestrians allowed near fork truck activityAll lifts to follow the lifting plan	