Mobile Crane – Suspended Personnel Platform

Overview

Purpose	To provides the minimum safe work requirements for lifting personnel with a mobile crane. The use of a mobile crane to hoist personnel is prohibited except when the employer demonstrates that the erection, use, and dismantling of conventional means of reaching the work area, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform, or scaffold, would be more hazardous, or is not possible because of the structural design or worksite conditions. **This instruction shall be used in accordance with HSS 602 Mobile Crane Safety.**
Scope	This Standing Instruction applies to Marathon (MPC) employees at LAR locations, including the Blue Barn, Calciner, Sulfur Recovery Plant and Watson Cogen
Out of Scope	A deviation from this instruction must be approved by the LAR Safety Department. The LAR Health & Safety Coordinator is the minimum approval level for a deviation from this process.
Implementation Schedule	Provisions of this Standing Instruction shall be fully implemented 06/27/2018
Record Retention	Printed copies of this document should not be retained more than 12 months. Any revision to this document will be retained indefinitely.

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1.0 References

1.1 Refining References

Number	Description
HSS 602	Mobile Crane Safety
FS 790	Fall Prevention and Protection
SAF 049	Fall Protection Program
MNT-RIG-023	Inspection and Maintenance Requirements for Rigging & Hoisting Equipment
MNT-RIG-024	Inspection & Maintenance Requirements for Fixed and Mobile Cranes

1.2 Industry References

Number	Description
OSHA 29 CFR 1926	Subpart CC Cranes and Derricks in Construction
Cal/OSHA 1616.6	Hoisting Personnel
Cal/OSHA GISO	Group 13 Cranes and Other Hoisting Equipment
ASME B30.23	Personnel Lifting Systems

1.3 Terms

The following terms are used in this document:

- Assembly/Disassembly
- Boom Attached Personnel Platform
- Competent Person
- Lift Director
- Lifting/Hoisting Equipment
- Operational aids
- Qualified Person
- Qualified Rigger
- Radius
- Rated Capacity
- Shackle
- Side Loading
- Signal Person(s)

- Sling
- Suspended Personnel Platform
- Suspension System
- Two-blocking

For details, see Appendix A: Terms and Definitions

2.0 Roles and Responsibilities

2.1 Roles and Responsibilities

The table below describes the roles and responsibilities related to this document.

Roles	Responsibilities
2.1.1 Crane Operator	a. Shall be qualified to operate the specific type of crane used in the personnel lift. b. Shall meet the State of California requirements for a certified crane operator. c. Comply with the requirements of this instruction. d. Follow the crane manufacturer's recommendations for rated load constraints and operational limitations. e. Complete daily crane inspections prior to starting the lift. f. Operate the hoisting equipment in compliance with ASME Standard B30.23, state and federal regulations and this instruction. g. When physically or mentally unfit, the crane operator shall not engage in a SPP lift. h. Shall not lift personnel if they did not have 8 hours off immediately prior to the start of the shift. i. Shall not lift if they were working for more than 10 hours prior to the start of the lift, or the lift will not be completed before working for 12 hours. j. Shall not engage in any practice that will divert their attention while lifting personnel. k. Shall not lift or lower an occupied platform at a speed in excess of 90 feet per minute. l. Shall only respond to signals from the Lift Director or a designated signalperson. m. Obey a stop signal at any time, no matter who gives it. n. Whenever there is any doubt as to the safety of the lift, the operator shall consult with the Lift Director before commencing or continuing the lift. o. Must remain at the hoist controls, with the engine running, when personnel are in the platform. p. The crane operator shall be experienced in lifting personnel in a suspended personnel platform.

	q. If a qualified crane operator has no experience in lifting personnel, a crane operator with experience shall be present to support the crane operator and have no other duties while personnel are in the SPP. For example, a crane operator may be transitioning to qualify in lifting suspended personnel platform operations
2.1.2 Crane Operator Prohibitions	a. The LTA is responsible for prohibiting an operator to lift personnel under the following circumstances: b. The operator does not feel physically or mentally fit to perform the operation. c. The operator has been working for more than 10 hours prior to the start of the lift or the lift will not be completed before the operator has been working for 12 hours. d. The operator did not have at least 8 hours off, prior to the start of the workday.
2.1.3 Ground Crew	a. Shall be physically and mentally capable of assisting with the inspections and operations associated with the lift. b. Shall be trained in the specific requirements of their tasks associated with lifting personnel. c. Shall be responsible for visually inspecting the personnel lifting platform and its associated rigging for hazardous conditions prior to and during any operation. d. Use rigging that is dedicated to lifting personnel platforms. e. Verify the personnel platform is securely attached to the hoisting equipment. f. Verify the load line is not directly attached to, or wrapped around, the personnel platform. g. Assist in the entrance and exit of personnel lift occupants at ground level. h. Barricade and tag the lift area to keep personnel from passing under the raised personnel platform. i. Maintain continuous and positive communication between the personnel platform occupants and the operator. j. Shall not engage in any practice or have any other duties which will reduce the safety of the personnel lift operation.
2.1.4 Lift Director	a. Ensure that this procedure is followed during SPP lifting operations. b. Hold the pre-lift meeting. c. Verifying all required inspections have been completed. d. Verifying qualified persons are assigned to perform the functions of the operator, signal persons, and ground crew. e. Supervising the SPP lifting operation

2.1.5 Lifting Technical Authority	a. Verify the need for a suspended personnel platform (SPP) lift. b. Verify that the equipment to be used for the personnel lift meets the requirements of ASME B30.23 Chapter 23-1 and CAL/OSHA Title 8 CSO 1616.6. c. Authorize the SPP lift operation. d. Require the SPP lift be accomplished in accordance with the provisions of this procedure. e. Designate a Lift Director for each SPP lift operation. f. Provide this procedure to the Lift Director. g. Shall designate the appropriate number of signalpersons, ground crew, and platform occupants to perform the SPP lift safely
2.1.6 Platform Occupants	a. Have been instructed in the recognized hazards of personnel platform lifts, such as impacting structures outside the platform, unexpected platform motion, and any special hazards associated with the lift. b. Be instructed in these personnel lifting instruction and safety precautions. c. Attend the pre-lift meeting. d. Maintain a stable and even loading in the platform. e. Keep all parts of their body inside the platform during raising, lowering, and positioning, except when performing duties as a designated signalperson or when necessary to position the platform. f. Not interfering with the designated signalperson in the platform, except to give an emergency stop signal. g. Keep their personal fall protection device lanyard fastened to the provided anchorage points at all times. h. Be familiar with the hand signals posted in the platform. i. Know the emergency stop signal. j. Conduct themselves in a manner to help maintain the platform stability and the safety of the personnel lift operation

3.0 Suspended Personnel Platform Design and Specifications

When using equipment to hoist personnel, the occupant shall be in a personnel platform that meets the following requirements:

3.1 Suspension System

3.1.1 The personnel platform and attachment/suspension system used for hoisting personnel must be designed by a qualified person familiar with structural design.

3.1.2 The system used to connect the personnel platform to the equipment shall allow the platform to remain within 10 degrees of level, regardless of boom angle, movement of personnel, and the equipment inside the platform.

3.1.3 The suspension system shall be designed to minimize tipping of the platform due to movement of occupants in the platform.

3.2 Guardrails and Personal Fall Arret Systems

3.2.1 The personnel platform shall be equipped with a guardrail system that meets CAL/OSHA Title 8 CSO 1616.6 Hoisting Personnel requirements, and it shall be enclosed from the toe-board to the mid-rail with either solid material or expanded metal having openings no greater than 1/2 inch (1.27 cm).

3.2.2 Points to which personal fall arrest systems are attached shall meet the requirements in CAL/OSHA Title 8 CSO Article 24 Fall Protection and Fall Protection standards.

3.2.3 A handrail shall be installed inside the entire perimeter of the personnel platform except for access gates/doors.

3.3 Access Gates / Doors

3.3.1 When installed, access gates/doors of all types (including swinging, sliding, folding, or other types) shall:

a. Not swing outward.

b. Be equipped with a device that prevents accidental opening

3.4 Platform Specification and Occupancy

3.4.1 The platform shall have a current annual inspection record at the jobsite.

3.4.2 The personnel platform itself (excluding the guardrail system and personal fall arrest system anchorages), shall be capable of supporting, without failure, its own weight and at least five times the maximum intended load.

3.4.3 The weight of the platform and its rated capacity must be legible and shall be attached to the platform with a plate or other permanent marking.

3.4.4 All welding of the personnel platform and its components shall be performed by a certified welder familiar with the weld grades, types and material specified in the platform design.

3.4.5 Headroom shall be sufficient to allow personnel to stand upright on the platform.

3.4.6 In addition to the use of hard hats, personnel shall be protected by overhead protection on the personnel platform when personnel are exposed to falling objects. The platform overhead protection shall not obscure the view of the operator or platform occupants unless full protection is necessary.

3.4.7 All edges exposed to employee contact shall be smooth enough to prevent injury

4.0 Crane

4.1 Crane Setup

4.1.1 The crane shall not be assembled or operated unless a qualified person has determined the ground conditions to be firm, drained, and graded to a sufficient extent to meet the equipment manufacturer's specifications for support and degree of level.

a. Note: This is to be performed by a Ground Penetrating Radar (GPR) Survey.

4.1.2 Equipment with outriggers or stabilizers shall have them all extended and locked. The amount of extension shall be the same for all outriggers and stabilizers and in accordance with manufacturer procedures and load charts

4.2 Equipment Criterion

4.2.1 The total load (with the loaded platform, including the ball/block, load line and rigging) shall not exceed 50% of the rated capacity or 50% of the hoist rated line pull (whichever is lowest) for the radius and configuration of the equipment, except during proof testing.

4.2.2 When the occupied personnel platform is in a stationary working position, the load and boom hoist brakes, swing brakes, and operator actuated secondary braking and locking features (such as pawls or dogs), and automatic secondary brakes shall be engaged with the engine running

4.3 Devices

4.3.1 If a device listed in this section stops working properly, the crane operator shall safely stop operations.

a. Alternative measures are not permitted.

4.3.2 Personnel hoisting operations shall not begin unless the devices listed in this section are in proper working order.

4.3.3 Equipment with telescoping booms shall be equipped with a device to indicate the booms extended length clearly to the operator or shall have measuring marks on the boom.

4.3.4 A functional anti-two block is required on the crane when using a personnel platform which automatically prevents damage and load failure from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The anti-two block shall prevent such damage/failure at all points where two-blocking could occur.

4.3.5 The load line hoist drum shall have a system, other than the load line hoist brake, which regulates the lowering rate of speed of the hoist mechanism. This system or device shall be used when hoisting personnel.

4.3.6 Free fall of the load line and boom hoist is prohibited

4.3.7 Equipment with a variable angle boom shall be equipped with all of the following:

a. A boom angle indicator, readily visible to the operator, and

b. A boom hoist limiting device

4.3.8 Equipment with a luffing jib shall be equipped with all of the following:

a. A jib angle indicator, readily visible to the operator

b. A jib hoist limiting device

- Direct attachment of a personnel platform to a luffing jib is prohibited.

4.4 Attachments and Rigging

4.4.1 All detachable devices used shall be the type that can be closed and locked when attached.

4.4.2 When a wire rope bridle is used to suspend the personnel platform, each bridle leg shall be connected to a master link or shackle in a manner that ensures that the load is evenly divided among the bridle legs.

4.4.3 After the personnel platform is fastened to the hook on the whip line, a wire rope sling with rated capacity for the load shall be used to secure the personnel platform to the load line above the ball.

4.4.4 Rigging hardware (including wire rope, shackles, rings, master links, and other rigging hardware) and hooks shall be capable of supporting, without failure, at least five times the maximum intended load applied or transmitted to that component and shall be in good operating condition.

4.4.5 If rotation resistant rope is used, the slings shall be capable of supporting without failure at least ten times the maximum intended load.

4.4.6 Eyes in wire rope slings shall be fabricated with thimbles.

4.4.7 Bridles and associated rigging for suspending the personnel platform shall be used only for the platform and the necessary personnel, their tools and materials necessary to do their work. The bridles and associated rigging shall not have been used for any purpose other than hoisting personnel.

4.4.8 Synthetic slings shall not be used for suspension systems

4.5 Hooks

4.5.1 Hooks used to connect the hoist line and the personnel platform (including hooks on overhaul ball assemblies, lower load blocks, bridle legs, or other attachment assemblies or components) shall be:

a. Hooks that can be closed and locked, eliminating the throat opening

b. Closed and locked when attached

c. The hook shall be inspected for deformation and cracks and be free of defects

4.6 Shackles

4.6.1 Shackles used in place of hooks shall be of the alloy anchor type, with either:

a. A bolt, nut and retaining pin, in place; or

b. Screw type, with the screw pin secured (wired/moused) to prevent accidental removal

4.7 Personnel Platform Loading

4.7.1 The personnel platform shall not be loaded in excess of its rated capacity.

4.7.2 Personnel platforms shall be used only for personnel, their tools, and the materials necessary to do their work. Platforms shall not be used to hoist materials or tools when not hoisting personnel (except during trial and test lifts).

4.7.3 The number of personnel occupying the personnel platform shall not exceed the maximum number the platform was designed to hold or the number required to perform the work, whichever is less.

4.7.4 Material and tools shall be:

a. Secured to prevent displacement.

b. Evenly distributed within the confines of the platform while it is suspended

5.0 Pre-Lift Test and Inspections

5.1 Trial Lift Requirements

5.1.1 A trial lift with the unoccupied personnel platform loaded at least to the anticipated lift weight shall be made from ground level, or any other location where personnel will enter the platform, to each location at which the platform is to be hoisted and positioned.

a. Where there is more than one location to be reached from a single set-up position, either individual trial lifts for each location, or a single trial lift, in which the platform is moved sequentially to each location, shall be performed using the same path that will be used to hoist the personnel.

b. The trial lift shall be performed immediately prior to each shift when personnel will be hoisted

5.2 Repeating Trial Lifts

5.2.1 The trial lift shall be repeated prior to hoisting personnel in each of the following circumstances:

a. The equipment is moved and set up in a new location or returned to a previously used location.

b. The lift route is changed, unless the Lift Director determines that the new route presents no new safety considerations.

c. A new crane operator assumes the lifting operation

5.3 Trial Lift Inspection

5.3.1 Prior to and immediately following each trial lift, the Lift Director shall inspect the platform and equipment.

a. All discrepancies found during the trial lift and subsequent inspection(s) or otherwise determined to create a safety hazard shall be corrected before hoisting personnel.

5.3.2 With each trial lift, the Lift Director shall determine whether:

a. The safety devices and operational aids required are activated and functioning properly.

b. Nothing interferes with the equipment or the personnel platform in the course of the trial lift.

c. The lift will not exceed 50 percent of the crane's rated capacity at any time during the lift.

d. The load radius of the lift is accurate.

e. The trial lift has exposed any defect or problem or produced any adverse effect through a visual inspection of the crane, base support or ground, and personnel platform.

f. The trial lift is complete and shall confirm the test weight has been removed

5.4 Proof Testing Requirements

5.4.1 The platform and rigging shall be proof tested to 125 percent of the platform's rated capacity. A proof test must be performed prior to hoisting personnel in a platform when:

a. The equipment is set up or in a new location

b. Returned to a previously used location

c. After any repair or modifications to platform or rigging

- Proof Testing may be done concurrently with the trial lift

5.5 Proof Testing Inspection

5.5.1 The platform shall be held in a suspended position for a minimum of five (5) minutes with the test load evenly distributed on the platform.

5.5.2 After proof testing, the Lift Director shall inspect the platform and rigging to determine if it has passed the proof test.

a. If any deficiencies are found that pose a safety hazard, the platform and rigging shall not be used to hoist personnel until the deficiencies are corrected

b. Once the deficiencies have been corrected the proof test shall be repeated

5.6 Lifting Personnel

5.6.1 Immediately prior to lifting personnel, the platform shall be hoisted a few inches with the personnel and materials/tools on board and inspected by the Lift Director to ensure that it is secure and properly balanced.

5.6.2 The Lift Director shall verify the following conditions before the lift of personnel proceeds:

a. Verify the hoist ropes are free of deficiencies

b. Ensure that multiple part lines are not twisted around each other

c. Verify that the center of the hook is over the platform

d. Ensure that all wire ropes are properly seated on drums and in sheaves

6.0 Suspended Personnel Platform Lift Requirements

6.1 Critical Lift Plan

6.1.1 Prior to lifting individuals in a suspended platform, the Suspended Personnel Lift Plan (Appendix B) and pre-approval Form (L-08) shall be completed.

a. For further details on Critical Lift requirements, refer to HSS 602 Mobile Crane Safety

6.2 Pre-Lift Meeting

6.2.1 A pre-lift meeting shall be conducted by the Lift Director to review the applicable requirements of this procedure and at a minimum shall cover:

a. Each person's responsibility involved in the lifting operation

b. Specific safety precautions (e.g., designate secondary landing area)

c. Special signals (i.e., air horn in case of radio failure, spare radio battery)

d. Unique considerations of the lift and the work to be accomplished

6.2.2 Pre-lift meetings shall be held at each new work location and shall be repeated for any personnel newly assigned to the operation.

6.2.3 The minimum required attendants include the equipment operator, signal person, individuals to be hoisted and the ground crew.

6.2.4 All participants attending the pre-lift meeting must sign the Toolbox Talk portion of the work permit identifying that they understand the hazards and controls for the task.

6.3 Platform Occupants

6.3.1 Shall wear a personal fall arrest system and shall be attached to a structural member within the personnel platform.

6.3.2 Shall remain in direct radio communication with the signal person or the crane operator at all times.

6.3.3 Shall review the proper hand signals with the crane operator so that a clear understanding exists between personnel in the platform and the crane operator prior to the lift.

6.3.4 Shall Keep all parts of the body inside the platform during raising, lowering, and horizontal movement.

a. Exception: Only when it is necessary to position the platform or while performing the duties of a signal person

6.3.5 Shall not stand, sit on, or work from the top or intermediate rail or toe-board, or use any other means/device to raise their working height.

6.3.6 Shall not pull the platform out of plumb in relation to the hoisting equipment.

6.3.7 If the platform is tied to the structure, platform occupants shall confirm when the platform is untied and freely suspended so the crane operator can proceed with the lift operation.

6.3.8 If exiting the platform, 100% tie-off is required for fall protection, and the platform shall be secured before exiting.

a. A risk assessment pre-approval form (W-06) is required when personnel will be exiting the personnel platform while suspended.

b. The fall arrest systems including the attachment point (anchorage) shall comply with FS 790 Fall Protection (LAR-C) and SAF-049 Fall Protection Program (LAR-W).

6.4 Personnel Lift Operations

6.4.1 When hoisting personnel is required in pile driving and or articulating crane operations prior approval in the planning stage must be obtained from the LTA and Safety Department.

6.4.2 Hoisting of the personnel platform shall be performed in a slow, controlled, cautious manner, with no sudden movements of the equipment or the platform.

6.4.3 Before individuals exit or enter a hoisted personnel platform that is not landed, the platform shall be secured to the structure where the work is to be performed, unless the Lift Director can demonstrate that securing to the structure would create a greater hazard.

6.4.4 Tag lines shall be used unless their use creates an unsafe condition.

6.4.5 The crane operator shall remain at the controls, with the engine running, at all times while the platform is occupied.

6.4.6 No lifts shall be made on any other of the equipment's load lines while personnel are being hoisted.

6.4.7 Hoisting of personnel while the crane is traveling is prohibited

6.5 Hoisting Personnel Near Power Lines

6.5.1 Hoisting personnel within 20 feet of a power line that is up to 350 kV, and within 50 feet of a power line that is over 350 kV, is prohibited.

6.5.2 Follow all of the requirements for Lifting Near Energized Power Lines in HSS-602 Mobile Crane Safety.

6.6 Hoisting Under Adverse Weather Conditions

6.6.1 When wind speeds (sustained or gusts) exceed 20 mph at the platform height, or in the event of electrical storms, fog or other adverse weather conditions, the lifting operation shall not begin (or, if already in progress, shall be terminated).

7.0 Working From Suspended Platform

7.1.1 When performing work from a suspended platform, the task shall be risk assessed in accordance with HSS-201 Permit to Work System and include risk assessment forms when required.

8.0 Emergencies

8.1.1 Upon being notified of an emergency, the crane operator shall immediately position the personnel platform in a safe area so that the worker(s) may exit.

Appendix A: Terms and Definitions

A.1 Assembly / Disassembly	The assembly and/or disassembly of equipment covered under this instruction.
A.2 Boom Attached Personnel Platform	Platform attached to the boom of the hoist equipment.
A.3 Competent Person	One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to personnel, and who has authority to take prompt corrective measures to eliminate them.
A.4 Lift Director	A person who directly oversees the work being performed by the hoisting equipment and the associated ground crew.
A.5 Lifting/Hoisting Equipment	Means mobile cranes, derricks, tower cranes, overhead cranes, chain falls, air winches (tuggers), forklift, etc.
A.6 Operational aids	Devices that assist the operator in the safe operation of the crane by providing information or automatically taking control of a crane function. These include, but are not limited to, the devices such as Anti-2 Block, boom angle indicator, LMI, etc.
A.7 Qualified Person	A person who, by possession of a recognized degree in an applicable field or certificate of professional standing or by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.
A.8 Qualified Rigger	A rigger who meets the criteria for a qualified person.
A.9 Radius	The horizontal distance from the center of rotation of a crane or derrick to the center of the vertical hoist line, hook shank or pin, or tackle with load applied.
A.10 Rated Capacity	The maximum working load permitted by the manufacturer under specified working conditions. Such working conditions typically include a specific combination of factors such as equipment configuration, radii, boom length, and other parameters of use.
A.11 Shackle	A U-shaped load bearing rigging connection device designed for use with a removable screw pin or bolt.
A.12 Side Loading	A load applied at an angle to the vertical plane of the boom.
A.13 Signal Person(s)	Individual(s) assigned to signal the hoisting equipment during rigging and hoisting operations. Only one signal person at a time will have authority to directly signal the lifting equipment operator.
A.14 Sling	An assembly used for lifting when connected to a lifting device or hoisting equipment. The upper portion is connected to the lifting device or hoisting equipment and the lower end supports the load made from materials, e.g., wire rope, synthetic materials like polyester and nylon webbing, and metal mesh.
A.15 Suspended Personnel Platform	Platform attached to hoisting equipment using wire rope, chain, or jointed attachment and that has no installed motion controls for the platform itself.

A.16 Suspension System	The rope or chain slings and other components, including fastening devices, used to connect the hoisting equipment to the personnel platform.
A.17 Two-blocking	A condition in which the lower load block or hook assembly comes into contact with the upper load block or boom point sheave assembly.

MOBILE CRANE SUSPENDED PERSONNEL PLATFORM LIFT PLAN

PERMIT #

EVERYONE HAS THE AUTHORITY AND OBLIGATION TO STOP UNSAFE WORK

COMPANY /CRAFT:	PHONE #	RADIO CH:
LOCATION:		
LIFT DESCRIPTION:		

SECTION A - LOAD INFORMATION

LOAD WEIGHT: LBS ☐ ESTIMATED ☐ WEIGHED ☐ MFR. PROVIDED ☐ ENGINEERED DRAWINGS

LOAD CALCULATIONS BY: DATE: CALCULATIONS VERIFIED BY: DATE:

LOAD DIMENSIONS: LOAD ANCHOR POINTS (LIFTING LUG) ACCEPTABLE: ☐YES ☐NA

SECTION B - PLATFORM /PERSONNEL BASKET INFORMATION

OWNER: MFR: ID#: RATED CAPACIRTY: lbs

SECTION C - CRANE

CRANE MANUFACTURER: MODEL: SERIAL #

SUPPORT MECHANISM

☐ CRAWLER ☐ OUTRIGGERS % EXTENDED SPREAD DIMENSIONS: x ft

CRANE CONFIGURATION

COUNTERWEIGHT: lbs FULLY EXTENDED ☐ YES ☐ NO ☐ NA

BOOM: ☐ Main Boom Length: ft ☐ Boom Extension Length: ft

☐ Fixed Jib Length: ft ☐ Luffing Jib Length: ft Jib Offset (if applicable) °

WIRE ROPE: Diameter: ☐in. ☐mm Single Part of Line Cap.: lbs Parts of Line Used for Lift:

BLOCK: Capacity: lbs Headache ball capacity: lbs

SOIL BEARING AND MAT ANALYSIS

ALLOWABLE GBP: ☐ 1,000 LB/FT² SOIL ☐ 2,000 LB/FT² ASPHALT ☐ 3,000 LB/FT² CONCRETE

MAXIMUM OUTRIGGER PRESSURE: lbs

MATTING TYPE: ☐ Wood ☐ Steel ☐ Synthetic ☐ other

MATTING DIMENSIONS: X X Min Surface Area: ft²

GPR REQUIRED: ☐ YES ☐ NO GPR REPORT ATTACHED: ☐ YES ☐ N/A

GPR SURVEY OK: ☐ YES ☐ N/A GPR AREA SURVEYED (crane 1): ft X ft

CRANE SPECIFICATION

1	CRANE OPERATING RADIUS: Minimum ft Maximum ft QUADRANT: ☐ 360° ☐ Over the front ☐ Over the rear ☐ Over the side	
2	BOOM LENGTH USED: ft	BOOM ANGLE AT PICK: ° BOOM ANGLE AT SET: °
3	BOOM/ JIB RATED CAPACITY AT MAX RADIUS: lbs	PARTS OF LINE CAPACITY: lbs
4	CRANE DEDUCTIONS (4A TOTAL):	lbs
5	RIGGING & ATTACHMENTS WEIGHT (5A TOTAL):	lbs
6	LOAD WEIGHT (6A TOTAL):	lbs
7	TOTAL GROSS LOAD WEIGHT (add 4 + 5 + 6):	lbs
8	CRANE RATED CAPACITY (Lowest of line 3):	lbs
9	PERCENT RATED CAPACITY (7 divided by 8):	%

4A CRANE DEDUCTIONS WEIGHT		5A RIGGING AND ATTACHMENTS WEIGHT		6A LOAD WEIGHT (e.g. Pump, turbine, tower...)	
Main Block	lbs	Sling	lbs		lbs
Headache Ball	lbs	Shackles	lbs		lbs
Auxiliary Head	lbs		lbs		lbs
Jib stowed/erected	lbs		lbs		lbs
	lbs		lbs		lbs
Total	lbs	Total	lbs	Total	lbs

10 SLINGS

	Type	Configuration	Capacity lbs	Applied load	% Capacity
a.					
b.					
c.					
d.					

11 SHACKLES

	Type	Quantity/size	Capacity lbs	Applied load	% Capacity
a.					
b.					
c.					
d.					

SECTION D – ADDITIONAL PRECAUTIONS / COMMENTS

ROLE	NAME (PRINT)	SIGNATURE	DATE	TIME
LIFT AUTHORITY (LTA)				
LIFT DIRECTOR				
CRANE OPERATOR				
SAFETY MANAGER				

SECTION E- RIGGING PLAN DIAGRAM

SECTION F- LIFTING PLOT PLAN

SUSPENDED PLATFORM INSPECTION & CHECKLIST

EVERYONE HAS THE AUTHORITY & OBLIGATION TO STOP UNSAFE WORK

PRE-LIFT PERSONNEL PLATFORM INSPECTION

1.	Platform /suspension information is legible	☐ PASS	11.	Rigging connections ☐ eyebolts ☐ pad eyes ☐ other:	☐ PASS
2.	Load supporting welds / bolts	☐ PASS			
3.	Load supporting members	☐ PASS	12.	☐ Wire rope ☐ Chain	☐ PASS
4.	Barrier from toe board to intermediate rail	☐ PASS	13.	Master Link	☐ PASS
5.	Handrail	☐ PASS	14.	Shackles	☐ PASS
6.	Fall protection device anchoring points	☐ PASS	15.	Trial Lift	☐ PASS
7.	Gate locking mechanism	☐ PASS	16	Platform proof test @ 125 %	☐ PASS
8.	Platform flooring	☐ PASS	17.	Special purpose items circle one	☐ PASS
9.	Suspension attachment points	☐ PASS	Type:		
10.	Locking latch on hook connections	☐ PASS			

PERSONNEL LIFT CHECKLIST

1.	Crane operator certification meets the requirements for California for the crane being used	☐ YES
2.	Crane operator has completed the daily crane inspection prior to the lift	☐ YES
3.	Crane has current annual inspection by California State Certified Inspector	☐ YES
4.	Crane is equipped with a boom length indicator	☐ YES
5.	Crane is equipped with a working boom angle indicator	☐ YES
6.	Crane anti-two block device has been inspected, tested and its operational	☐ YES
7.	Crane wire rope is capable of supporting seven (7) times the max load or ten (10) times if using rotation resistant wire rope	☐ YES
8.	Crane has adequate wire rope to reach the ground with boom fully extended and highest boom angle	☐ YES
9.	Crane is equipped with a positive locking hook latch and is locked in the closed position	☐ YES
10.	Crane hoisting equipment is powered up and down (no free fall)	☐ YES
11.	Crane exceeds the required distance from the prohibited zone of overhead power lines	☐ YES
12.	Crane is level within 1% of level grade and located on firm footing with outriggers extended per the manufacturer	☐ YES
13.	Crane is set up according to the Lift Plan	☐ YES
14.	Site Ground conditions have been assessed and deemed adequate for the lift by appropriate parties	☐ YES
15.	Weather conditions acceptable for the lift -Wind speed _____ mph Wind direction _____ Time _____	☐ YES
16.	Is all rigging capable of supporting 5x the max intended load weight (slings, shackles, master links)	☐ YES
17.	Tag lines attached to the load are sufficient length, size, and material	☐ YES
18.	Lift Area barricaded and cleared of all non-essential personnel	☐ YES
19.	The signal person & lift director has been assigned **Name(s)**:	☐ YES
20.	Communication between the platform personnel and the crane operator been identified – **TYPE**:	☐ YES
21.	Pre-lift meeting has been conducted and the toolbox talk has been signed by all personnel	☐ YES

REMARKS

SAFETY ACTION PLAN

What actions will be taken if a unit or evacuation alarm is sounded, there is a communication failure, etc…

Identify anticipated hazards and/or limiting weather conditions (wind, visibility, obstacles, power lines, etc…)

APPROVALS

ROLE	NAME (PRINT)	SIGNATURE	DATE	TIME
LIFT AUTHORITY (LTA)				
LIFT DIRECTOR				