

## 1. Scope

This standard is applicable to all business units and managed operations, including new acquisitions, admin/corporate offices and research facilities located off site; during exploration, through all development phases and construction, operation to closure and, where applicable, post closure management.

- 1.1. This standard applies to personnel and equipment involved in lifting operations using mobile or fixed cranes. The standard does not apply to hoisting operations in underground mines
- 1.2. Businesses are necessarily required to comply with local crane and lifting-related laws and regulations

## 2. People

- 2.1. Any person designing or approving a lifting plan must be trained and certified as competent through a Vedanta-approved approach or a National certification system
- 2.2. The operator's experience, skill and knowledge of the particular crane should be given due consideration
- 2.3. The crane operator, riggers and signal man must be trained every three years and certified by authorized agencies approved by Vedanta, ideally the crane OEM
- 2.4. Operators must undertake a pre-operational safety check for each shift that must be based on a risk assessment for the equipment

## 3. Process

- 3.1. Contract or hire cranes shall be inspected by a 3rd party and Vedanta representative before mobilization on a Vedanta site with a documented and recorded checklist
- 3.2. The selected crane must have valid visual inspection; NDT inspection for all load bearing parts; a load test certificate signed by a competent authority of the respective state government/regulator; and recertification if the crane configuration is changed. The crane must have all major modification / accident history available when entering the business and issue copies to the Vedanta authorized person
- 3.3. All rigging hardware must have valid certificates from a competent person certified by the state government/regulator
- 3.4. Cranes with a safe working load beyond 15T shall be fitted with rated load indicator
- 3.5. No lifting is permitted above 90% of the maximum rated load in the specific lifting configuration
- 3.6. Each lift is to be categorized as a Routine or Critical Lift
- 3.7. A Critical Lift is greater than 75% of the maximum rated load in the specific lifting configuration; multiple crane lifts; lifts over operating facilities where this may endanger personnel; lifts over power lines; blind lifts where the operator cannot see the load or its final resting place and lifts involving personnel cages
- 3.8. All Critical Lifts require a risk assessment and a lifting plan approved by a competent person per the Cranes and Lifting Guidance Note

- 3.9. Activities at night or during inclement weather are Critical Lifts and require that emergency response personnel are available at all times during the lifts
- 3.10. Routine lifts may not require a lifting plan for each lift, but this must be considered and defined in a risk assessment
- 3.11. No crane shall be moved ("marched") with a load suspended. Any "pick and carry" operation must undergo a specific risk assessment of the dynamics of the load and crane during the planned travel
- 3.12. There must be documented procedures that require:
  - 3.12.1 All rigging connections to be checked prior to commencing a lift
  - 3.12.2 Checks that the load being lifted is within the rated capacity of the crane and lifting attachments and within the limits set out in the lift plan
  - 3.12.3 Checks of all safety devices or overload limiters to ensure they are not overridden or cut out
- 3.13. A pre-lift meeting with all members of the lifting team must be conducted
- 3.14. A dry run should be conducted prior to the lift
- 3.15. Hand signals or two-way radio shall be used for communication during crane operations. Mobile phones shall not be used
- 3.16. Loads must not swing over people or occupied buildings
- 3.17. Seat belt use is mandatory by the crane operator
- 3.18. Overhead travelling cranes must be fitted with audible travel alarms or an equivalent warning device
- 3.19. Tag lines must be attached on both the side of loads which require steadying or guidance while suspended
- 3.20. The load must be well secured and properly balanced in the sling or lifting device
- 3.21. All sensors/load cell of the crane should have valid calibration, certified by OEM or authorized representative
- 3.22. The OEM lifting chart shall always be used and there shall be no interpolation between the chart listings
- 3.23. A register of cranes and lifting equipment must be established that records all maintenance history which will begin once the crane has mobilized on site. These records are to be maintained by the business
- 3.24. There must be a system for the inspection, maintenance and approval of cranes and lifting equipment

## 4. Review

- 4.1. Crane safety devices shall be inspected or tested on a suitable schedule and the findings recorded
- 4.2. Businesses are required to comply with local laws and regulations covering crane safety
- 4.3. All documentation including recorded crane data is to be preserved



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