

SAFE WORK PRACTICE – HOISTS AND CRANES

PURPOSE & SCOPE

To establish a policy for safe mobile crane operations, inspections, and training that will minimize the risk of worker injury or damage to equipment and the environment. This procedure applies to all Newtz employees and contractors at all Newtz facilities.

PREREQUISITES

Operators:

- Cranes will be operated only by designated trained and competent personnel, trainees under their direct supervision, or qualified maintenance, test or inspection personnel.
- Before operation, the operator:
 - must have documentation of training for the type of crane being operated. A formal mobile crane operating class is required for operators (10G) and general crane safety training for trainees.
 - must have read and understood the operator's handbook for that specific crane.
- The operator is responsible for those operations under his direct control. Whenever there is any doubt as to safety, the operator has the authority to stop the lift until safety has been assured. In the event a lift is thought to be unsafe by the crane operator, he shall immediately stop the lift operation and report to his supervisor.
- Operators and operator trainees should have normal depth perception, field of vision, reaction time, manual dexterity, coordination, and no tendencies to dizziness or similar undesirable characteristics. When physically or mentally unfit, an operator shall not engage in the operation of equipment.

Equipment:

- Lifting equipment must be inspected prior to each use to ensure there is no obvious physical damage (6E-6G).
- Complete inspections of the crane shall be performed annually.
- Inspection reports must be signed and dated.

BEFORE USE

- Test all controls at the start of a new shift. If any controls fail to operate properly, they must be adjusted or repaired before operations are begun.
- Pre-operational inspections are required prior to daily use (6E-6G). The supervisor must act on the deficiencies noted to ensure repairs are made.

DIRECTIVES

- Any hoist over a capacity of 2000 kg. must have all inspections, operations and maintenance recorded in a logbook.
- The weight of the load shall be determined before the lift operation begins. All questionable loads shall be weighed. Lifts over 75% of a crane's rated capacity require that a **critical lift** calculation be completed (6H). Never exceed the capacity of the load chart.

- Hoisting of any loads shall be promptly discontinued upon indication of any dangerous weather conditions (lightning or high winds, etc.) or other impending danger.
- The operator shall respond to signals only from the appointed signal man, but shall obey a stop signal at any time, no matter who gives it.
- The operator shall not leave his position at the controls while the load is suspended.
- The operator shall not engage in any practice which will divert his attention while engaged in operating the crane.
- All personnel shall be kept clear of loads about to be lifted and of suspended loads. All personnel should also be kept clear of the cab and counterweights while the crane is in operation. The counterweight swing radius of all cranes must be barricaded.
- Ensure only equipment designed and rated for a lift is used.
- Slings and lifting lines shall not be used if cut or frayed, where the damage exceeds 10% of the total thickness.
- Hooks are not to be spread more than 15% or twisted more than 10 degrees and they must be equipped with safety latches.
- Any load that cannot be held while being lifted shall have a tag line attached and be guided by another worker.
- Never stand under a suspended load or ride on a suspended load under any circumstance. Signs and barricades should be considered to keep other personnel out of the lifting area.
- Verify safe clearances from power lines.
- The crane shall be uniformly level within one percent of level grade and located on firm footing.
- House locks, if so equipped, shall be engaged during transit.
- Adequate cribbing must be available to the operator if needed for proper setup of the crane.
- While in transit the following precautions must be exercised:
 - The boom shall be fully retracted and the jib/extension in the stowed position.
 - The boom should be carried in line with the direction of motion.
 - The superstructure shall be secured against rotation (or the boom placed in a boom rack mounted on the carrier), except when negotiating turns when there is an operator in the cab, or the boom is supported on a dolly. The empty hook shall be lashed or otherwise restrained so that it cannot swing freely.
- When removing pins or bolts from a boom, workers should stay out from under the boom.
- The operator should not push or pull anything with a crane boom.
- Check operation of the anti-two-block system daily to ensure that it is working properly.

Outriggers:

- Each outrigger must be visible to the equipment operator, or a signal person must be posted if an outrigger is not visible.
- While extending or retracting outriggers the operator shall give a warning sound, such as sounding the horn or alarm, to notify all personnel in the immediate area that the outriggers are being moved.

REVIEW: [Occupational Health and Safety Code](#): Part 6 Sections 59-75, 88-92