



Crane and Rigging Policy

Health and Safety FCX-HS32 | Release Date 10/29/2020 | Version 1

POTENTIAL FATAL RISKS

Lifting Operations

CRITICAL CONTROLS

- Barriers and Segregation
- Mechanical Integrity of Lifting Equipment
- Lifting Execution

TRAINING REQUIREMENTS

General Awareness for all personnel working around cranes

Reference the Training Requirements Technical Supplement

ADDITIONAL RESOURCES

ASME
 OSHA
 NCCCO
 CIA
 Other local and national resources as required

POLICY

OVERVIEW

This policy applies to all contractors and employees at all locations that utilize cranes and rigging equipment for the movement or adjusting of objects by hoisting. Employees and contractors will not work around or with cranes unless they are properly trained for their level of interaction. This policy does not apply to personnel hoisting in shaft conveyances.

ACTIONS TO STAY SAFE

- Person in charge of lifting operations will have the knowledge to advise crews on load limits of lifting devices.
- Conduct and document inspections prior to use, including monthly/annually (rigging materials including ropes, chains, slings, etc. and crane components including outriggers, cables, blocks, hooks, etc.)
- Conduct pre-task risk assessments and implement critical controls.
- Ensure anti two-block devices are installed and functioning.
- Always use softeners to protect slings from damage.
- Crane operators will not engage in distracting activities.
- Anyone can give the signal to **stop** operations.
- No crane will be loaded beyond its capacity or used for other than its designated purpose.
- Ensure all moving parts are guarded if they expose employees to hazards.
- Complete critical lift plans where necessary (see Technical Supplement).
- All crane activity will utilize a designated signalperson or radios on a designated channel.

Suspended Loads

- No one is permitted to ride the hook, ball or any portion of a load.
- No one is allowed under a load unless it is effectively blocked from inadvertent movement.
- Use spotters, flagging or barricading to communicate the fall zone.
- Use push/pull sticks and tag lines whenever possible.
- Guiding a load into place by hand is only permitted when employees:
 - Have view of the height of the load
 - Understand potential pinch points and trip hazards
 - Understand the potential and actual swing hazards
 - Not at risk of being struck should the load fall
 - Maintain distance from the sling and load and between the sling and hook

OPERATOR EXPECTATIONS

- The operator has final responsibility and control over the crane operations.
- When two or more operators are required, one will be designated as the lead.
- Do not respond to unclear signals, or signals from anyone other than the designated signalperson (with the exception of **STOP**).

- Never intentionally ignore signals.
- All loads will be attached to the hook with a sling or other approved device.
- Position the hook over the load to prevent load swing.
- Properly seat rope in the drum and sheaves, ensuring line is not kinked or twisted (multiple part lines).
- Do not suddenly accelerate or decelerate a load, allow load to contact obstructions, swing over personnel, or allowing side loading or load dragging.
- When side pulling must occur, follow manufacturer recommendations and a written plan approved by a competent person.

Overhead and Gantry Cranes

- Control boxes will be labeled for button action and direction.
- If there are two or more control boxes, all but one must be removed from service and locked, or procedures in place for pitch and catch activities.

Mobile Cranes

- Use outriggers, with pads (when necessary), placed on a firm level surface, for all lifts unless manufacturer says otherwise.
- Consider soil type per 30CFR 1926.1402 when designing crane pads.
- Install swing radius and boom clearance protection as needed.
- Position mobile cranes to obtain the best rated lift capacity relative to the load and landing area.
- Distance from high walls should be equal to the height of the high wall.
- Set crane back from leading edge of benches or excavations (non-sloped-distance equal to the height of the wall or bench; sloped- distance equal to half the height of the wall or bench).
- Lower mast and boom when traveling (with no load).
- Use a spotter when traveling within 20ft (9m) of an overhead power line.
- Never use a rubber tire crane for pick and carry. Complete a risk assessment and follow manufacturer recommendations.
- Ensure load chart is legible and visible to mobile crane operators.
- When weather conditions warrant, de-rate crane capacity per manufacturer’s recommendations.
- Follow site specific procedures for lightning detection protocol.
- Assess wind speed prior to making a pick.
- Stop work if wind speeds are in excess of manufacturer’s recommendations
- De-energize all overhead power lines before lifting over or under.
- Maintain minimum safe distances from power lines:

Voltage (KV)	Minimum Clearance
Up to 50 KV	10 ft (3.3m)
50-200 KV	15 ft (4.6m)
200-350 KV	20 ft (6.1m)
350-500 KV	25 ft (7.6m)
500-750 KV	35 ft (10.6m)
750-1,000 KV	45 ft (13.7m)

Inspections

- Pre-use inspections
- Monthly inspections documented and retained for at least three (3) months.
- Quarterly inspection for severe use (i.e. tankhouses, corrosive environments) per ASME B30.2
- Annual inspection documented and retained for at least twelve (12) months.
 - Reference 1926.1412 for details for mobile cranes
 - Reference 1910.179 for details for overhead cranes

Crane Certification, Repair

- Crane certifications must be current (within 12 months) and on-site, and a certification tag/label legible on equipment
- Recertify any crane that has been damaged or structurally repaired in any way.
- Inspect all crane equipment prior to use.
- Remove any damaged/defective crane equipment immediately and tag as out of service. Report to supervisors immediately.
- All repairs must be to manufacturer specifications, by qualified individuals, and include load testing if required.

