

# CERTIFICATION NEWS



## FOR IMMEDIATE RELEASE

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## Power Line Safety Card Is Handy Reference

Fairfax, VA, June 24, 2014—The National Commission for the Certification of Crane Operators (NCCCO) is making available Power Line Safety cards to help operators understand and apply federal OSHA's new guidelines for operating cranes around power lines. The cards, issued in conjunction with the Florida Crane Safety Alliance, also provide references for best practices based on both consensus standard ANSI B30.5 and OSHA's federal regulation, 29 CFR 1926 Subpart CC.

"Studies show that electrocution from contact with power lines accounts for a large percentage, if not the majority, of crane-related fatalities," said NCCCO Manager of Program Development and Administration, Joel Oliva. "While OSHA's new crane rule provides comprehensive guidance for operating cranes near power lines, applying the new rules can be challenging. NCCCO is distributing these power line safety cards as a handy reference for operators, lift directors, and others responsible for job site safety."

**Florida Crane Safety Alliance**  
An OSHA Cooperative Program  
Through OSHA and Florida Crane Safety Alliance, the Florida Crane Safety Alliance oversees this card for informational purposes only. It is not an enforcement vehicle of either OSHA or Florida Dept. of Safety and Homeland Security.

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**WORKING AROUND POWER LINES**

**BEFORE STARTING TO LIFT, CHECK THE FOLLOWING:**

- KNOW THE LOAD**
  - Weight of the item being lifted
  - Know the center of gravity
  - Load Composition/Considerations
    - Liquid
    - Additional Weight
    - Potential movement of load
    - Components of load
    - Planes properly attached
  - Structural integrity of load
    - Lifting points properly positioned and adequate
    - Consider the need to use a spreader bar
- CRANE CONFIGURATION AND SET-UP**
  - Solid ground or adequate matting
  - Level within 1%
  - Barge work has special considerations and load charts
    - Lifting is within acceptable limits
    - Proper counterweight configuration and secure placement
    - Proper outrigger placement with pads or damage
    - Protected Swivel Radius
    - Secure Landing area, proper rigging and movement of load
    - Load Moment Indicator (LMI) properly used
      - All operator aids working properly
- BOOM CONFIGURATION**
  - Length of boom- does it match the job (Not too long or too short)
    - Attachments- Properly Secured?
      - Jibs
      - Luffers
      - Pin hydraulic booms
    - Angle of boom--
      - Clear obstacles
      - No interface with other cranes
  - RADIUS OF LOAD FROM CENTER OF CRANE**
    - Within capacity of the correct chart
  - PROPER RIGGING**
    - Properly sized for load to be lifted
    - Proper configuration for load
    - Weight of rigging is added to weight of load or deducted from the capacity
      - Block \_\_\_\_\_ lbs.
      - Rigging \_\_\_\_\_ lbs.
      - Line \_\_\_\_\_ lbs.
  - ENVIRONMENTAL CONCERNS**
    - Wind
      - No more than 20 MPH or manufacturer's recommendation
      - Consider added surface area of load when considering speed
    - Visibility
      - Operator must be able to see load to landing site or be under direction of signal person (hand, voice or audible)
    - Added weight-Considerations from:
      - Slush
      - Ice
      - Water
  - EXTERNAL OBSTACLES TO CONSIDER**
    - Power lines
    - Buildings
    - Previous Excavations/Trenches
    - Underground hazards
    - Vaults
    - Pipe/Utilities
  - COMMUNICATION WITH RIGGERS**
    - Sight-hand signals
    - Voice-contact with rigger/signal person
    - Blind lifts
      - Hand-off responsibility from rigger to set down
      - Load ownership from lift to set down
  - QUALIFIED LIFTING PERSONNEL**
    - Lift Director
    - Crane Operator(s)
    - Riggers
    - Signal person
    - Observer/Trainer
    - Management/Supervision

**BEST PRACTICES**

**Lift Director**  
1, 2a, 2g, 4, 5, 6, 7 & 8

**Crane Operator**  
2b, 2c, 2d, 2e, 2f, 2g, 3

**Rigger**  
1, 2g, 4, 5 & 6

**Signal Person**  
1, 4, 6, 7 & 8

**Observer/Trainer**  
1, 2, 3, 4, 5, 6, 7 & 8

**Management/Supervision**  
1, 2, 3, 4, 5, 6, 7 & 8

These are Best Practices developed by the Florida Crane Safety Alliance based on both the consensus standard ANSI B30.5-2007 edition and OSHA's Subpart CC.

**WORKING AROUND POWER LINES**

Identify Work Zone  
Choose

Demarcating boundaries and prohibiting the operator from operating past these boundaries

Defining the work zone area at the area 360 degrees around the equipment up to the maximum working radius

Determine the distance between any part of the crane, load and load line and the power line.

NOTE: 1926.1409 (d) Power line safety over 250KV where 30 ft is specified, 50 ft should be substituted.

Less than 20 ft. → Choose 1, 2 or 3 → Option 1 → De-energize and ground → Clear to operate Crane

More than 20 ft. → Clear to operate Crane → Option 2 → Maintain at least 20 ft clearance and follow criteria below → Follow criteria in 1926.1409 (b) → Conduct a planning meeting → If rig line is used it must be non-conductive → Erect and maintain an elevated warning line, barricade or line of lights at 20 ft or Table A clearance → See 1926.1410 for separating inside Table A areas → Must choose 1 of the following:

  - Use a spreader
  - Use a primary alarm
  - Use a non-impact stop mechanism
  - Use the device automatic stop mechanism
  - Use an automatic load limit device as outlined in 1926.1401

**TABLE A**  
**MINIMUM CLEARANCE DISTANCE**

VOLTAGE	MINIMUM CLEARANCE DISTANCE
up to 50	10 ft.
over 50 to 200	15 ft.
over 200 to 350	20 ft.
over 350 to 500	25 ft.
over 500 to 750	35 ft.
over 750 to 1,000	45 ft.
over 1,000	As established by the utility owner

29 CFR 1926.1408

The laminated, pocket-sized cards unfold from 3½” x 2” to 3½” x 10” for easy access and reference on the jobsite.

One side of the card covers essential items to check before starting to lift, including knowing the load, crane configuration and set up, boom configuration, radius of load, proper rigging, environmental concerns, external obstacles, and communication with riggers and qualified lifting personnel. To better implement best practices, these items are cross-referenced by role, indicating which apply to lift directors, crane operators, riggers, signal persons, oilers/trainees, and management/supervision.

A flowchart on the reverse of the card helps users navigate the rules for working around power lines detailed in 29 CFR 1926.1408. The flowchart starts with “Identify Work Zone” and works through an extensive decision tree to determine exactly which precautions are necessary according to the OSHA requirements. Table A from the OSHA rule, “Minimum Clearance Distances,” is also included for easy reference.

NCCCO piloted the cards at CONEXPO’s Lift Safety Zone in March. Due to the popularity of the power line safety demonstrations and the importance of the information on the cards, NCCCO is distributing the reference cards to interested parties for a nominal contribution towards the costs of printing and mailing. Packs of 10 cards are available from NCCCO for \$10 each; go to [www.nccco.org/plscard](http://www.nccco.org/plscard) for order form.

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The [National Commission for the Certification of Crane Operators \(NCCCO\)](http://www.nccco.org) is an independent, non-profit organization established in 1995 by industry to develop and administer a nationwide program for the certification of crane operators and related personnel. Since then, NCCCO has administered over 850,000 nationally accredited written and practical examinations and issued more than 240,000 certifications in all 50 states.