

## SAFETY FOR CONTRACTORS

# Clearance from overhead lines

## Crane and derrick operations near power lines have special requirements

When operating cranes and derricks, it is the employer's responsibility to do the following:

1. Make sure to identify the work area.
2. Determine if any part of the equipment, load line or load, if operated up to the equipment's maximum working radius, could pass within 20 feet of the power line (if the line is less than 350,000 volts) or within 50 feet of the power line (if the line is more than 350,000 volts).
3. If any part of the equipment could pass within the required minimum distance, then you must either confirm with the utility company that the power line has been de-energized and visually confirm the line has been grounded at the worksite or ensure that no part of the equipment, load line or load approaches closer than the required minimum distance, by implementing the required encroachment prevention provisions.

For detailed requirements, see [OSHA regulations](#).

## Minimum approach distances for cranes and derricks are required

To help be safe, you should remain 20 feet from lines up to 350,000 volts or 50 feet for lines over 350,000. Or if the specific voltage is clarified with the utility company, then the required minimum approach distances are the following:

Energized line voltage minimum approach distance (Table A)	
Up to 50,000 volts	10 feet
50,000 – 200,000 volts	15 feet
200,001 – 350,000 volts	20 feet
350,001 – 500,000 volts	25 feet

## Required encroachment prevention provisions for cranes and derricks

As an employer, you must assume all power lines are energized unless the utility company confirms that the power line has been and continues to be de-energized and visibly grounded at the worksite. You must also train each operator and crewmember assigned to work with the equipment (see detailed [requirements in OSHA regulation](#)). Additionally, you must:

1. Conduct a planning meeting with the operator and the other workers who will be in the area of the equipment or load to review the location of the power line(s) and the steps that will be implemented to prevent encroachment.
2. Ensure tag lines are non-conductive.
3. Erect and maintain an elevated warning line, barricade, or line of signs in view of the operator at the required minimum approach distance (see [detailed OSHA regulations](#)).
4. Implement at least one of the following (see [detailed requirements in OSHA regulations](#) for each):
  - Proximity alarm set to give the operator sufficient warning to prevent encroachment
  - A dedicated spotter who is in continuous contact with the operator
  - A device that automatically warns the operator when to stop movement
  - A device that automatically limits range of movement, set to prevent encroachment
  - An insulating link/device