NEW OSHA REGULATIONS

OSHA Cranes/ Derricks in Construction Section 1926.1408 and 1926.1409

This is a high level outline only. Refer to www.osha.gov for all requirements.

Employer must identify the work zone by either: (1) demarcating boundaries (such as with flags, range limit device or range control warning device) and prohibit operator from operating past those boundaries: OR (2) define the work zone as the area 360 degrees around the equipment, up to the equipment's maximum working radius.

Determine if any part of equipment, load line, or load (including rigging and lifting accessories) could get closer than 20 feet for less than 350 kV or 50 feet for greater than 350 kV and at or less than 1000 kV if operated up to the equipment's maximum working radius.

NO → Employer can proceed with operations.

YES

Employer must do either **Option 1, 2, or 3**.

Option 1. Confirm from the utility that the power line has been de-energized and visibly grounded at the worksite. Proceed with operations.

Option 2. Employer must ensure that no part of the equipment, load line, or load (including rigging and lifting accessories) gets closer than 20 feet if at or less than 350 kV or 50 feet if more than 350 kV and at or less than 1000 kV to the power line by implementing the Encroachment Precautions.

Option 3. Employer contacts utility to determine line voltage. Utility provides within 2 working days. Determine if any part of equipment, load line, or load (including rigging and lifting accessories) while operating up to the maximum working radius in the work zone could get closer than the Table A distances. If so, implement Encroachment Precautions.

Table A Distances:

Up to 50 kV:	10 feet
Over 50 to 200 kV:	15 feet
Over 200 to 350 kV:	20 feet
Over 350 to 500 kV:	25 feet
Over 500 to 750 kV	35 feet
Over 750 to 1,000 kV:	45 feet

Implement encroachment precautions.

Operations where any part of crane, load line, or load is closer than Table A distance to an energized power line is prohibited unless all the requirements on Page 2 are met.

Encroachment Prevention Precautions required for Options 2 or 3:

1. Conduct a planning meeting with operator and other workers to review the location of power lines and steps to prevent encroachment.
2. Tag lines, if used, must be non-conductive.
3. Erect and maintain elevated warning line, barricade, or line of signs, in view of the operator, equipped with flags at 20 feet from the power line if at or less than 350 kV or 50 feet if more than 350 kV and at or less than 1000 kV (if using Option 2) or the distance shown in Table A if using Option 3. If operator is unable to see the elevated warning line, a dedicated spotter (B) must be used in addition to implementing one of A, C, D, or E below.

In addition to the items above, implement at least one of these:

A. Use a proximity alarm set to give operator sufficient warning to prevent encroachment.
B. Use a dedicated spotter who is in continuous contact with the operator.
C. Use a device that automatically warns the operator to stop (range control warning device to prevent encroachment).
D. Use a device that automatically limits range of movement, set to prevent encroachment.
E. Use an insulating link between the end of the load line and the load.

Power Line Safety requirements for getting closer than the Table A distances Section 1926.1410

Table A Distances:	
Up to 50 kV:	10 feet
Over 50 to 200 kV:	15 feet
Over 200 to 350 kV:	20 feet
Over 350 to 500 kV:	25 feet
Over 500 to 750 kV:	35 feet
Over 750 to 1,000 kV:	45 feet

Operations where any part of crane, load line, or load (including rigging and lifting accessories) is closer than Table A distance to an energized power line is prohibited unless all requirements on this page are met.

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Employer determines that it is infeasible to work without breaching Table A distances.

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Employer determines after consulting with utility that it is infeasible to de-energize and ground or relocate the power line.

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Utility or registered professional engineer (PE) determines the minimum clearance distance that must be maintained to prevent electrical contact.

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Planning meeting with employer and utility or PE to be held to determine procedures that will be followed.

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If so equipped, the automatic reclosing features must be made inoperative by the utility if the design permits before work begins.

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Employer is required to have utility install line hose or cover up except where unavailable for the voltage.

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Documented procedures must be developed and kept on site. Equipment user and utility or PE meet to review procedures to prevent encroachment.

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Utility or PE and employers of employees involved in the work must identify one person to direct implementation of procedures.

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If procedures are ineffective, the employer shall stop work OR have utility de-energize and visibly ground or relocate the lines.

Employer is also required to do these items.

- Dedicated spotter shall be used.
- Elevated warning line or barricade in view of operator equipped with flags shall be installed.
- Insulating link shall be installed between end of load line and load.
- Non-conductive rigging shall be used.
- If equipment has device that automatically limits range of movement, it must be used.
- Tag lines must be non-conductive.
- Barricades set up 10 feet around crane to prevent personnel from entering the work area.
- Workers, other than operator, must be prohibited from touching load line.
- Only essential personnel are permitted in area.
- Equipment must be grounded.