

Electrical Safety: Working Around Power Lines

Working around power lines requires careful planning.

It can involve obtaining municipal permits and approvals, consulting with utility companies to accurately determine the voltage, and submitting a completed [Form 30M33](#) to WorkSafeBC.

Pre-Job Planning

Everyone who works near overhead power lines needs to know and follow the applicable safety practices. Before any cranes arrive at the worksite, employers must implement control measures that include:

- A clear pre-job plan
- Safety equipment training
- Training for all workers working near power lines

Additional elements included in pre-job planning:

- Site plans must show the location of existing or planned power lines
- The prime contractor, site supervisor, or appointed person must call the utility company to de-energize or insulate power lines before anyone works around them
- Mark the danger zone on the ground as a visual aid for operators and spotters

It's essential to maintain a safe working distance from power lines, as shown in the following table.

Voltage Phase to Phase	Minimum Distance to Maintain	
	Metres	Feet
Over 750 V to 75 kV	3	10
Over 75 kV to 250 kV	4.5	15
Over 250 to 550 kV	6	20

Safe Practices When Working Near Overhead Power Lines for Riggers and Operators

- Use an insulated or non-conductive tagline.
- Avoid stacking materials near or under overhead lines.
- Reduce the working speed of the lifting equipment.
- Be aware if the power line is moving (e.g., due to wind).
- Use a dedicated spotter to assist in the lifting operation around a power line. The spotter must warn operators when any part of their equipment or load approaches the minimum distances set out by law.
- Create a safe route for the machine to follow if it is required to pass under an overhead power line.

If a Conflict Between a Crane and a Line Occurs

- Do not try to break contact with the line. Stay inside the cab until a utility representative tells you it is safe.
- If you must exit the cab due to fire or some other hazard, jump clear from the equipment. Land on both feet at the same time and keep them together.
- Once on the ground, if you must move, shuffle your feet heel to toe, keeping your feet in contact with one another.

Reference: OHSR Section [19.24.1](#)

Project: Address:

Employer: Supervisor:

Date: Time: Shift:

Number in crew: Number attending:

Other safety concerns or suggestions:

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Record of those attending:

Name: (please print)		Signature:	Company:
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

Manager's remarks:

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Manager: Supervisor:

(Signature)

(Signature)

For more information on health and safety requirements for crane operations in B.C., refer to the *Workers Compensation Act* and the OHS Regulation at worksafebc.com.