Toolbox talk

Overhead power lines

Assume they're live and keep well clear

10 minutes

For: Plant operators, drivers, scaffolders and anyone working near overhead lines

Why it matters

Contact with live overhead lines kills and seriously injures people every year. Tall or long plant like excavators, cranes, tippers and MEWPs is most at risk, and you don't even need to touch a line to be hurt, because electricity can jump across a gap.

Key points

1. Check for overhead lines in or near the work area, along site boundaries and on access routes.
2. Treat every line as live unless the line owner proves otherwise.
3. Don't assume lines on wooden poles are telephone wires. Lower voltages can still kill.
4. Contact the line owner early. The best option is to divert the line or make it dead.
5. If work near live lines can't be avoided, use barriers, goalposts and warning notices.
6. Get the safe clearance distance from the line owner. Keep plant and materials that could reach it out.
7. You don't have to touch a line. Electricity can jump across to plant or people that get too close.
8. Damp or dirty wood, plastic and rubber can conduct electricity. Don't rely on gloves or boots.

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Go further: HSE guide: Avoiding danger from overhead power lines (GS6)

Sources: HSE: Electricity, overhead power lines in construction; HSE: Overhead power lines; HSE: Avoiding danger from overhead power lines (GS6); UK Power Networks: Working near power lines.

This talk supports, but does not replace, your site-specific risk assessment, method statement, training and supervision. Free to copy and use. **tradefoxapp.com/toolbox-talks/overhead-power-lines**

Overhead power lines

Do

- Ask where the overhead lines are before you bring plant onto site.
- Use the marked crossing points under lines, and cross at right angles.
- Use the physical restraints fitted to cranes and excavators working near lines.
- Keep the network operator's emergency number in the cab and on your phone.
- Stop work and tell your supervisor if you think you're too close.

Don't

- Don't work under or near live lines unless it's been planned and controlled.
- Don't forget long items like ladders and scaffold poles can reach a line too.
- Don't go past barriers or goalposts set up for the lines.
- Don't try to free equipment caught on a line until the owner says it's dead.

Ask the group

- Where are the overhead lines on or near this site?
- Which of our plant or materials could reach them?
- What would you do if your machine touched a line?
- Who has the network operator's emergency number?

If it goes wrong: Stay in the cab, keep others away and call the network operator: 105 (GB), 03457 643 643 (NI). Drive clear only if safe. If fire forces escape, jump clear without touching the machine and ground together; move away with feet together. Call 999 for injury or fire.

On this site

Nearest first aider _____ Emergency assembly point _____

Site-specific hazards and controls _____

_____

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Attendance register

Overhead power lines

Site / project

Date and time

Presented by

Company

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

By signing, attendees confirm they took part in this toolbox talk and understood the key points. Keep this record with your site safety file.

Presenter signature

Follow-up actions

Quick check

Overhead power lines

Tick one answer for each question. Your presenter has the answers.

Name _____ Date _____

1. How should you treat an overhead line?

- [ ] As dead unless it's sparking
- [ ] As live unless the owner proves otherwise
- [ ] As a phone line if it's on wooden poles

2. Do you have to touch a line to get a shock?

- [ ] Yes, always
- [ ] No, electricity can jump across a gap
- [ ] Only in the rain

3. Who tells you the safe clearance distance?

- [ ] The line owner
- [ ] The plant driver
- [ ] Nobody, just guess

4. Your machine touches a line. What should you do first?

- [ ] Climb down the steps
- [ ] Stay in the cab and contact the network operator
- [ ] Try to pull the line free

5. Can lines go live again after tripping out?

- [ ] No, never
- [ ] Yes, automatically and without warning
- [ ] Only if someone resets them on site

For the presenter

Answers and sources

Quick check answers

1. As live unless the owner proves otherwise

HSE says treat lines as live unless the line owner proves otherwise.

2. No, electricity can jump across a gap

HSE warns that contact isn't necessary. Getting too close can be enough for a flashover.

3. The line owner

HSE says get the safe clearance distance from the line owner and set barriers at it.

4. Stay in the cab and contact the network operator

HSE says stay in the cab, warn others to stay away and contact the network operator.

5. Yes, automatically and without warning

HSE says the power may trip out and come back on automatically, without warning.

Sources

- HSE: Electricity, overhead power lines in construction
  https://www.hse.gov.uk/construction/safetytopics/overhead.htm
- HSE: Overhead power lines
  https://www.hse.gov.uk/electricity/information/overhead.htm
- HSE: Avoiding danger from overhead power lines (GS6)
  https://www.hse.gov.uk/pubns/gs6.htm
- UK Power Networks: Working near power lines
  https://www.ukpowernetworks.co.uk/safety-equipment/power-lines/working-near-power-lines/advice-on-working-near-overhead-power-lines-gs6

> **Presenting tips:** keep it to about 10 minutes, use real examples from your site, ask the group questions rather than reading everything out, and record attendance on the register.

Look up. Assume it's live.

1. **Find the lines before you start**
2. **Keep plant below the clearance**
3. **Stay in the cab if you touch**

Overhead power lines toolbox talk

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Sources and qualifications

Overhead power lines

Scope: Great Britain safety legislation unless a nation is identified. Northern Ireland has separate legislation. Site rules can be stricter than minimum legal duties; use the site assessment, instructions and competent supervision.

A4 interface: existing overhead-line hazards. Working clearances must come from the network/line owner and GS6 planning; no blanket A4 clearance is claimed.

A4 basis: published IET guidance on BS 7671:2018+A4:2026. The full licensed standard was not available for clause-by-clause verification. This is an editorial/source review, not installation certification. IET: current edition.

S1. HSE: Overhead lines in construction

Treat as live, line-owner planning, avoid/divert/isolate hierarchy, clearances, barriers/goalposts and flashover; all key points and quiz.

https://www.hse.gov.uk/construction/safetytopics/overhead.htm

S2. HSE GS6: Avoiding danger from overhead lines

Detailed planning and controls; cab/escape precautions after contact and keeping others away; emergency box and Do/Don't.

https://www.hse.gov.uk/pubns/gs6.htm

S3. HSE: Overhead power lines

Contact/close-approach danger and emergency precautions. An owner-agreed working clearance is not a generic safe distance.

https://www.hse.gov.uk/electricity/information/overhead.htm