



# Men Killed by 11,000 Volts when Assisting with Crane Loads

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## INCIDENT

In the 1990's, two men were instantly killed in separate incidents when the crane loads they were steadying connected with power arcing from 11,000 volt overhead power lines.

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## CIRCUMSTANCES

A young man was killed when the crane load of pipes he was steadying got too close to 11,000 volt cables. The crane operator moved or "walked" the load approximately 50 metres, with the victim walking backwards to prevent the load from swinging. The voltage from overhead power lines arced across and connected with the load, killing the man instantly. The crane operator jumped out of the crane and went to assist the victim, who he thought had been hit by the load. He was still unaware that the load and the victim were electrically live, and was about to touch the victim when a passer-by stopped him. Had the passer-by not intervened, the crane operator would also have died.

In another incident, a man was assisting a crane operator by steadying a leg of a portal frame as the crane operator moved the load across the worksite. When they reached the destination, the crane operator luffed out the load,

connecting with power arcing from an 11,000 volt power line. The man holding the portal frame was instantly killed.

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## INVESTIGATION

The employer or main contractor controlling construction sites must always identify and manage the hazard of overhead power lines if they are located on or near the worksite.

These incidents could have been prevented if the crane operators and assisting employees had been trained to:

- Check the area where they are about to travel
- Check in the air for power lines, as well as on the ground for obstacles
- Check their position relative to any power lines as they go.

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## DEPARTMENT OF LABOUR ADVICE

It is the Department's advice that employers and contractors on construction sites abide by the New Zealand Electrical Code of Practice 34:2001- Electrical Safe Distances. This code states that there shall be a distance of at least 4 metres between any overhead power line and any part of any mobile plant or load carried,



unless the operator has received written consent from the overhead power line owner allowing a reduced distance.

A copy of this code is available from [www.ess.govt.nz](http://www.ess.govt.nz).

All persons working with cranes and suspended loads must receive comprehensive training in the correct and safe operating procedures.

For further information on crane safety, view the Approved Code of Practice for Cranes (3rd edition) at [www.osh.govt.nz](http://www.osh.govt.nz).

*Note: This material has been prepared using the best information available to the Department of Labour at the time of publication. Information may change over time and it may be necessary for you to obtain an update. This material is also only intended to provide general advice and does not constitute legal advice. You should make your own judgement about action you may need to take to ensure you have complied with your workplace health and safety obligations under the law.*

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## **WHICH INDUSTRIES/SECTORS OR MATTERS WILL THIS INFORMATION BE RELEVANT TO?**

Construction industry