

Reading 2

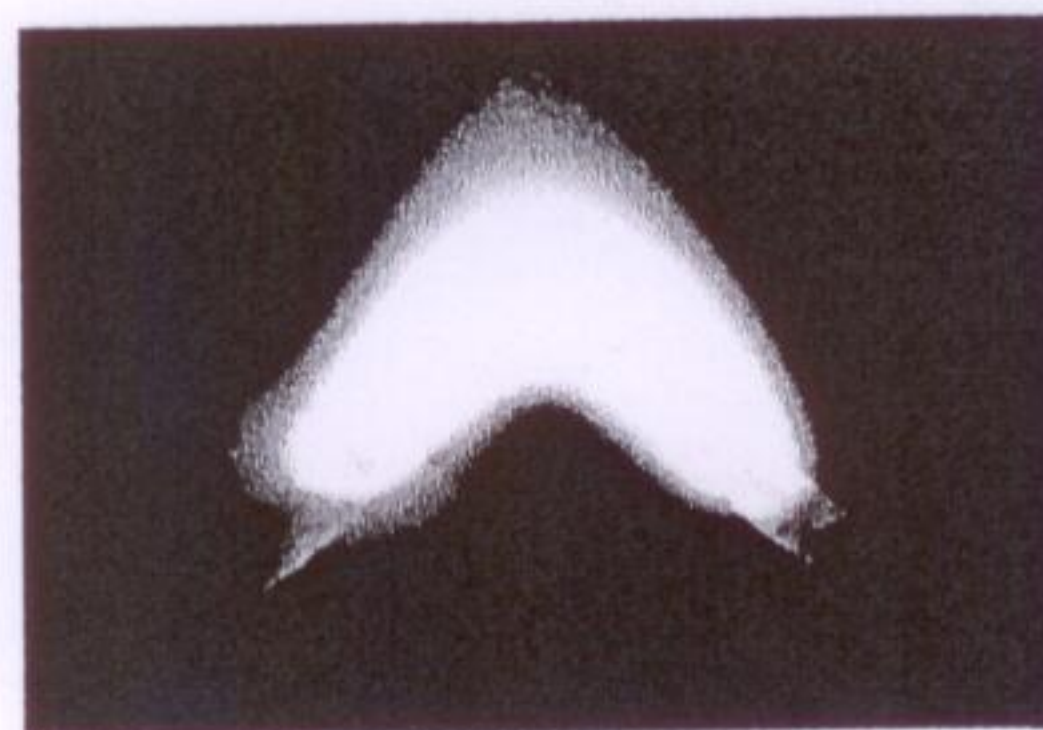
► You are going to read six passages, all of which describe work-related electrical accidents. Before you do so, can you think of some mistakes that could cause serious injury or even death to electrical workers? Discuss in pairs/groups. Then skim the passages to see if any of the mistakes you identified are mentioned.

1) On July 9, 2020, at 8:56 a.m., James Wallace Dean, a 60-year-old mine superintendent with 36 years of mining experience, died when he contacted energized high-voltage components in a 4,160 volt (4,160 VAC), three-phase electrical enclosure. The accident occurred because the mine operator's policies, procedures, and training were inadequate to ensure that the employees properly de-energized, locked out, tagged, and tested the 4,160 VAC enclosure and internal components prior to performing work on the circuits.

(<https://www.msha.gov/data-reports/fatality-reports/2020/july-9-2020-fatality/final-report>)

2) A 24-year-old electrician suffered serious burns to his forearms, hands and face when he touched a live electrical circuit and caused an arc flash explosion. The incident took place at a data centre under construction in Macquarie Park.

(<https://www.safework.nsw.gov.au/compliance-and-prosecutions/incident-information-releases/other-industries/electrical-incident>)



An electric arc

3) Recently a plumber was fatally electrocuted when installing a hot water system at a domestic property. A second incident occurred where an electrician working in a roof cavity space received critical injuries from electric shock while working on an air conditioning unit. Both incidents were the result of power not being de-energised.

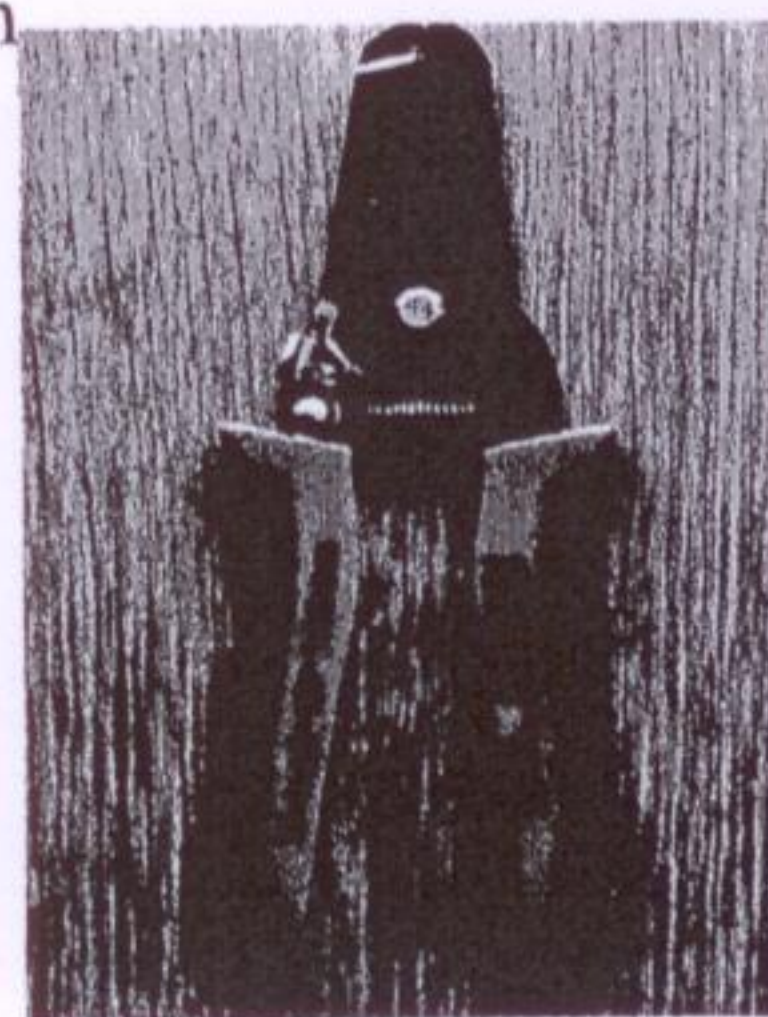
(<https://www.safework.sa.gov.au/news-and-alerts/safety-alerts/incident-alerts/2020/two-incidents-from-electric-shock-in-less-than-a-month>)

4) A 27-year-old Indian national was dismantling an electrical distribution board when he was electrocuted. The worker was taken to Changi General Hospital, where he succumbed to his injuries.

(<https://indianexpress.com/article/world/indian-man-electrocuted-in-singapore-6804019/>)

5) A maintenance man rode 12 feet above the floor on a motorized lift to work on a 277-volt light fixture. He did not turn off the power supply to the lights. He removed the line fuse from the black wire, which he thought was the "hot" wire. But, because of a mistake in installation, it turned out that the white wire was the "hot" wire, not the black one. The black wire was neutral. He began to strip the white wire using a wire stripper in his right hand. Electricity passed from the "hot" white wire to the stripper, then into his hand and through his body, and then to ground through his left index finger. A coworker heard a noise and saw the victim lying face-up on the lift. She immediately summoned another worker, who lowered the platform. CPR (Cardiopulmonary Resuscitation) was performed, but the maintenance man could not be saved. He was pronounced dead at the scene.

(<https://www.cdc.gov/niosh/docs/2009-113/pdfs/2009-113.pdf>)



A wire stripper