

Shared Learning

Critical Risk: High Voltage Electricity

Tipping near 33kV transmission line

What happened?

During the inspection of a recently commissioned 33kV transmission line, a pile of green waste was discovered in very close proximity to the line.

Investigation at the location and subsequent review of CCTV footage confirmed that tipping activities had been undertaken directly beneath the live 33kV transmission lines.

Control measures to reduce the risk associated with vehicle movements in the area included warning signage, overhead hazard flagging, written safety communications to operators of neighbouring facilities and agreed exclusion zone requirements.

While no personnel were injured, the incident represents a high-potential event. Had mobile plant contacted the transmission line during the tipping operation, the activity could have resulted in a fatal electrical injury.

Eastland Generation TOPP2 Power Plant

What did we learn?

The 33kV line runs through an area that did not previously have overhead hazards. Operators of neighbouring facilities had not needed to consider managing this hazard in the past.

The location of a nearby green waste dumping area had previously been highlighted as a potential risk, however the operator was unwilling to relocate the green waste area to reduce risk.

The incident investigation identified systemic weaknesses; however, it also clearly identified unsafe contractor behaviour that knowingly contravened site rules and exposed workers and others to catastrophic risk.

Corrective actions focus on reducing the opportunity for such behaviour through stronger engineering controls including fencing along road sides in close proximity to the live high voltage transmission lines. Strengthened procedural, and governance controls have also been recommended.

