

SAFETY BULLETIN

Industry reports more truck rollover incidents

INCIDENT

A rise in the number of truck rollovers over the past three years has prompted Mine Safety to ask industry to better manage the risks associated with these incidents. Any truck rollover event has potential to cause harm to the truck operator, passengers and/or bystanders.

BACKGROUND

For the three-year period between July 2013 and June 2016, 91 rollover incidents of trucks were reported to the department. On average, a truck rollover occurs in NSW every 12 days. Of the 91 incidents reported:

- 40.7% occurred at a quarry
- 29.7% occurred at an open cut coal mine
- 26.4% involved articulated trucks, of which the majority occurred at a quarry with one tractor (cabin rollover)
- 13.2% of workers required medical assistance.

CIRCUMSTANCES

Circumstances surrounding the incidents included:

- excessive speed, particularly with articulated trucks
- uneven ground, particularly with tipping and reversing
- loss of ground stability (or ground subsidence) beneath the truck
- use of trucks outside their design capabilities, such as the use of rigid trucks on steep, uneven gradients, and overloading
- material holding up on the tray when tipping
- under inflation or rapid deflation of tyres
- roads being too wet (from dust containment watering or rain) causing the vehicle to slide violently and overturn.

SPECIFIC LEGISLATION

The Work Health and Safety Regulation 2011 sets out mandatory requirements for a person with management or control of powered mobile plant, (including trucks). This includes:

- managing risks associated with trucks overturning in accordance with part 3.1 'Managing risks to health and safety'. See clause 214(a)
- ensuring, so far as is reasonably practicable, that a suitable combination of operator protective devices for the vehicle is provided, maintained and used. See clause 215(2).

RECOMMENDATIONS

Mine operators should identify all work activities on the mine site where trucks are used and review control measures for truck rollovers. This review must be consistent with clauses 9 and 10 of the Work Health and Safety (Mines and Petroleum Sites) Regulations 2014 and should consider monitoring of:

- risk controls to prevent a truck roll, including:
 - fitting speed-limiting controls
 - correct tyre condition, type and pressures
 - truck suspension systems in good order and appropriate for the environment
 - tipping areas are level without cross grade
 - tipping areas are stable, are capable of withstanding the truck wheel pressures and are not prone to subside
 - safety functions that alert the operator of a pending overturning of the dump body or out-of-balance situation
 - checking for material hang-up while tipping and knowing material density and flowability
 - operating trucks within their design (OEM) limits
 - brakes and retard systems being functional to OEM specifications
 - haul roads maintained to design standards, without pot holes and inconsistent variants such as rocks
 - operator training and observations
 - road watering procedures do not make roads slippery
 - ensuring 'out-of-control vehicle emergency recovery' procedures are adequate.
- risk controls to mitigate the risk of injury following a truck roll over, including:
 - fit-out and use of operator seat restraints
 - use of operator protective structures
 - appropriately designed and maintained windrows, berms and bunding.

FURTHER INFORMATION

Further information on truck roll overs can be found at the Mine Safety website in:

- SB15-01 [Rollover of load shifting equipment](#)
- SA15-02 [In-service failure of safety critical steering components](#)
- SB13-03 [Unplanned movements of vehicles - too many near misses](#)
- SB 10-03 [Mobile plant - safety critical systems](#)
- SA09-01 [Driver injured in dump truck rollover](#)
- SB07-11 [Operator protective devices on mobile plant in underground coal mine](#)
- SA 06-12 [Maintenance of safety critical systems - braking, steering & warning systems](#)
- SA 06-13, [Braking standards for trucks](#)
- SA 06-14 [Safe operating grades for mobile equipment](#)
- SA 05-10 [Fatal truck accident at quarry](#)
- SA 06-07 [Seatbelts must be worn](#)
- SA 03-01 [Articulated dump truck roll overs](#)

NOTE: Please ensure all relevant people in your organisation receive a copy of this Safety Alert, and are informed of its content and recommendations. Process this Safety Alert in a systematic manner through the mine's information and communication process. It should also be placed on the mine's notice board.

Issued by

Dave McLean

Chief Inspector of Mines

Appointed pursuant to Work Health & Safety (Mines and Petroleum Sites) Act 2013

View more safety alerts and search our safety database at www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/safety-alerts. If you would like to receive safety alerts by email, enter your contact details at www.resources.nsw.gov.au/info/signup.

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