NSW GOVERNMENT

NSW Resources Regulator

INVESTIGATION INFORMATION RELEASE

JANUARY 2020

Collision between dozer and light vehicle

Incident date: 14 September 2019

Event: Collision between dozer and light vehicle at Maules Creek Mine

Location: 25km north of Boggabri, NSW

Overview

An unoccupied light vehicle was extensively damaged in a collision with a bulldozer on 14 September 2019. The NSW Resources Regulator has completed an investigation into the incident.

Figure 1 Photograph of damaged light vehicle

The mine

Maules Creek Mine is an open cut coal mine operated by Maules Creek Coal Pty Ltd, a subsidiary of Whitehaven Coal Limited. The mine is 25km north of Boggabri in north-west NSW.

The mine operates a strip mining process and uses excavators and haul trucks to remove overburden.

The incident

At about 8pm on 14 September 2019, a worker parked a light vehicle on a bench in a working area of the mine and left it unattended to begin operating an excavator. A dozer was already operating in the area. The dozer reversed some 80 metres before hitting the light vehicle, resulting in extensive damage.

Figure 2 Photograph of work area

The investigation

The Regulator has completed an investigation to determine the cause and circumstances of the incident. The investigation identified:

- The dozer and excavator operator typically travelled to the work area in the same light vehicle. The dozer operator would drop the excavator operator at his allocated excavator using the light vehicle. Ordinarily he would then leave the light vehicle in a light vehicle park up area adjacent to the area where the dozer was parked up.
- A suitable park up location for light vehicles was not constructed in the work area. During the previous night shift, workers had parked the light vehicle within a bunded area on a light vehicle access road.
- The absence of a suitable park up location was not identified in the pre-shift inspection undertaken by the open cut examiner (OCE) at the start of the shift.
- At the start of the shift, the excavator was not operating. The excavator operator transported the dozer operator to the dozer in a light vehicle and left the work area. When he returned to the work area in the light vehicle later in the shift, the dozer was operating.
- The excavator operator parked the light vehicle on the bench at a location that was a considerable distance from where the dozer was operating. The flashing light was not left on in accordance with site procedures where vehicles were parked outside designated parking areas. The excavator operator advised the dozer operator that he had returned to the work area. He walked across the bench to the excavator which he began operating.
- The dozer operator did initially identify where the light vehicle was parked, however lost situational awareness. At the point in time the collision occurred, the dozer operator thought the light vehicle was in a different location.

Safety observations

Mine and petroleum site operators have a duty to identify hazards and manage risks to health and safety associated with the operation of mobile plant in accordance with the provisions of the *Work Health and Safety Act 2011* and *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and Regulations.

Mobile plant interactions in mines, particularly between light vehicles and heavy mobile plant such as dozers, are a well-known risk. Mine operators must identify, implement and maintain appropriate no-go zones and separation areas between light vehicles and heavy mobile plant.

Mine operators should:

- eliminate light and heavy vehicle interactions, by establishing segregated roadways and designated parking locations for light vehicles near working areas
- apply engineering controls such as proximity detection, collision avoidance systems and cameras to assist in managing the risks associated with vehicle and mobile plant interactions,
- review the adequacy of surface transport management plans, including radio and other communications protocols, and the processes detailed within these plans to ensure risk controls are monitored and verified as being effective
- when undertaking risk assessments and implementing operational changes, consider how organisational factors, such as a reduction in supervisory resources, can adversely impact on effective risk management.

Further information

Please refer to the following guidance materials:

- MDG 15 – Mobile and transportable plant for use on mines and petroleum sites
- Safety Bulletin – Positive communication failures result in collisions
- Investigation Information release - Fatality at Snapper Mineral Sands Mine
- Investigation Information Release – Light vehicle crushed by D11 dozer

About this information release

The Regulator has issued this information to draw attention to the occurrence of a serious incident in the mining industry. Further information may be published as it becomes available.

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