

DATE: MARCH 2019

## Rise in dozer incidents putting operators at risk

This safety bulletin provides safety advice for the NSW mining industry.

### Issue

The NSW Resources Regulator has noticed an increase in the number of reported incidents involving tracked dozers. The incidents occurred in a range of different circumstances. There have been several incidents in which machines have overturned. In each case, the operator was placed at risk of suffering serious injuries.

#### Incident 1:

A dozer operator was instructed to relocate a bund wall in a quarry. As the operator began the first push, the dozer slid sideways and rolled onto its side.

Figure 1: Cat D8 dozer after rolling off the bund (IncNot0033917). Photo courtesy of the mine.



#### Incident 2:

While working on a stockpile, a dozer sunk into a void.

Two of the three valves had formed open voids. The operator had identified that coal had been drawn from the stockpile and that the voids were a hazard. The operator then proceeded to push across the top of the third valve and sunk into the hidden void.

Figure 2: Dozer sunk into a void (IncNot0033728). Photo courtesy of the mine.



### Incident 3:

A dozer operator was pushing coal on a stockpile at night. It had been raining, several lights were out and the coal was identified as sticky. The operator had finished several pushes to the valve when he climbed on top of the material and started to push. The coal slumped, rolling the dozer.

Figure 3: Dozer rolled on a coal stockpile (IncNot0033387). Photo courtesy of the mine.



**Incident 4:**

An operator was working to build a ramp during night shift. The dozer was working at a 45° angle to a previously cut slot. The dozer was tramping back towards the slot and watching the right-hand track. The left-hand track travelled over the edge and the dozer slid down the 6.5 metre drop into the slot and rolled onto its side.

**Figure 4: Dozer rolled into a slot (SInNot-2018/01730). Photo courtesy of the mine.**



## Investigation

Contributing factors identified across the numerous incidents reviewed include:

- failure by the machine operators to adequately assess the area before starting work
- machine operators failing to manage the risks identified in the work area
- poor lighting, reducing operator visibility
- supervisors failing in their duty to oversee work
- machine operators not adequately trained for the task or environment in which they are operating
- incorrect methods used to ascend/descend slope.

## Recommendations

It is recommended that mine operators should:

1. confirm that all reasonably foreseeable operating conditions and practices have been assessed in the operational risk assessment for dozer operations; that the controls identified have been implemented, and they are monitored for effectiveness on an ongoing basis.
2. review training and assessment material to determine it adequately covers hazards and controls identified in operational risk assessments
3. conduct pre-task inspections of work areas to identify and manage the hazards present. This practice must be monitored and confirmed by supervisors.
4. require that ground implements (blades and rippers) are kept as low to the ground as possible during operation, particularly when operating on uneven surfaces.
5. provide adequate lighting for operation at night
6. schedule supervisors to conduct routine inspections and task interactions with equipment operators
7. review stockpiles to confirm that valve locations are easily and readily identifiable for operators
8. review [MDG28 Safety for stockpiles and reclaim tunnels](#) when reviewing the controls necessary to operate dozers on stockpiles.

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

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CM9 reference	DOC19/179748
Mine safety reference	SB19-01
Date published	6 March 2019
Authorised by	Chief Inspector Office of the Chief Inspector