

COLLAPSE OF DUST STOCKPILE ONTO LOADER



INCIDENT

A Caterpillar 988 loader was being used to draw material from a 5 to 6 metre high dust stockpile in a quarry. The operator was mucking from the left hand side of the near vertical face and had the loader almost parallel to the face when it collapsed onto the loader.

Three windows were broken by the hard compacted dust, which also fell into the cabin onto the operator. Luckily the operator escaped injury.

INVESTIGATION

The quarry produces a lot of dust and has numerous stockpiles with steep walls.

The stockpile in question was a few years old and very consolidated, with material falling away from the face like boulders.

The loader is 4.7 metres high to the top of the cabin, with the platform to the cabin 2.2 metres above ground level.

The loader was found to be operating parallel to and under the vertical face of the stockpile, which was higher than the loader.

PRELIMINARY RECOMMENDATIONS

Consolidated dust with a vertical face is a dangerous material to be worked by loader. Windrows have now been built in front of the vertical walls to capture any falling material while the stockpiles are progressively battered to the angle of repose, using an excavator. The company has decided that all loading from consolidated stockpiles will be done by excavator.

Loaders should never be used under vertical faces and never parallel to such faces.

All mines and quarries should have safe operating procedures in place for the management of the life cycle of all stockpiles. These procedures should address all hazards associated with stockpile operation and all employees should be trained in the procedures.

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