

SB17-07 November 2017

## Minimum air quantities for diesel engines in underground coal mines

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

### The issue

NSW Resources Regulator inspectors have identified situations in which underground coal mines have been operating diesel engine plant in areas where ventilation quantities have been less than the minimum values prescribed in clause 71(3) of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014.

### Circumstances

There have been three recent occurrences in which inspectors undertaking assessment and investigation activities at mines have identified that diesel engine plant was operating in areas where insufficient ventilation was available for the plant to operate.

On two of these occasions, inspectors issued section 195 prohibition notices that prevented diesel engine plant from operating in production areas until action was taken to address the non-compliances and safety risks.

It was also determined in one of these instances that ventilation quantities in the area being inspected were below the trigger level for the removal of power specified in the mine's ventilation control plan.

### Recommendations

The Resources Regulator completed an assessment program on the management of diesel exhaust emissions in underground metalliferous mines in early 2017. The findings of this program were issued to the NSW mining industry in March.

This report indicated the Resources Regulator's position that ventilation is a critical control in preventing unacceptable levels of diesel exhaust emissions in the workplace environment.

In August, the regulator published its compliance priorities for July to December 2017, and in September the fact sheet for the targeted assessment program on diesel exhaust emissions in underground coal was also issued.

This assessment program will include an examination of ventilation management at mines, and verification of ventilation quantities in working areas of the mine.

Mines should review:

- ventilation control plans with regard to the management of the maximum number of diesel machines permitted to operate in each airway split
- procedures relating to the control of diesel machines entering and leaving districts
- MDR (Mine Design Registration) documentation for each type of diesel engine plant in service at your mine to ensure the minimum ventilation quantity for each type is known and understood. Note that different MDRs may apply to the same machine type, depending on when the machine was built
- trigger action response plans relating to conditions where air quality or safety standards are not met
- training information provided to supervisors and workers relating to control of diesel machines, and response to circumstances where air quality standards are not met
- ventilation monitoring procedures to ensure that supervisors have an appropriate level of understanding of ventilation quantities in the districts under their control at all times.

Mine operator obligations are clearly stated in the *Work Health and Safety Act 2011* legislative framework and in particular clauses 62 and 71 of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*.

The risk associated with exposure to unacceptable levels of diesel exhaust emissions is well known. Mine operators need to remain constantly vigilant and review controls and procedures to ensure that the risk is being appropriately managed - and not being normalised.

**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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