



Queensland
Government

Department of
Natural Resources and Mines

27 February 2017

BY EMAIL: To all Underground Mine SSEs and UMMs

Dear SSE

Re: Methane levels in Underground Roadways

A letter was issued to all coal UMMs and SSEs on the 30th January, explaining the regulation pertaining to methane levels in underground roadways and how it should be applied.

Industry has provided feedback that the situation provided for in regulation 344(2) regarding the “sudden, temporary increase” of methane, needs to be made clear.

To provide clarity for the correct application of this Regulation, to ensure that the risk from an increase in the general body methane concentration in any roadway is at as low as reasonably achievable and within acceptable limits, the following detail is provided:

- Section (1) (a) of Regulation 344 requires that the mine’s ventilation system provides for the following — minimising, within acceptable limits, the layering and accumulation of noxious and flammable gas in each place where controlled ventilation is required under paragraph (b).

However Section (2) of Regulation 344 states that Subsection (1)(a) does not apply when there is a **sudden, temporary increase** in the general body concentration of methane to more than 2.5% and the ventilation system is capable of quickly reducing the methane concentration to not more than 2.5%.

Example for subsection (2) — a roof fall in a goaf causes an inrush creating a high and temporary concentration of methane.

“Sudden” is defined in the Macquarie Dictionary, relevantly, as “happening, coming, made, or done quickly, without warning or unexpectedly; or sharp, abrupt”.

Therefore if methane levels in a roadway increase without warning or unexpectedly for a short time, the ventilation requirements at section 344(1) of the CSMH Regulation will not apply. If the rise in methane levels is

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predictable or sustained for a longer period, the exemption under section 344(2) will not apply.

A sudden and temporary increase in the concentration of methane is a momentary spike that occurs over a short period of time. This is relevant to the immediate failure of strata in a goaf area that displaces a volume of goaf atmosphere into the return airway from that working face.

This is **not** a continued elevated increase in the general body concentration of methane that has resulted from the diurnal cycle, or the production cutting process, or inadequate management of ventilation control devices.

To ensure that continued elevated increases in the general body concentration of methane do not occur compliance with Regulation 343 where the mine's ventilation system is designed, implemented and monitored to ensure the atmosphere in each part of the mine has a general body concentrations within the prescribed limits. This must be achieved consistently.

Ensure your Safety and Health Management System (SHMS) is based on the basic premise that ensures that controls are in place to prevent the accumulation of general body Methane concentrations in any roadway at less than or equal to 2.5%.

If there are any further queries or clarifications required, please contact myself or a fellow Inspector.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R Albury', written in a cursive style.

Russell Albury
Chief Inspector of Coal Mines