

COAL MINE HEALTH AND SAFETY ACT 2002

Notice under clause 74 of Coal Mine Health and Safety Regulation 2006

Diesel engine exhaust

I, ROBERT REGAN, Chief Inspector, pursuant to clause 74 of the *Coal Mine Health and Safety Regulation 2006* (the Regulation), by this notice, specify –

- (a) the limits set out in the Schedule below as the limits referred to in clause 74(a) of the Regulation (limits on content of diesel engine exhaust used in underground parts of mine), and
- (b) the the manner and frequency set out in that Schedule as the manner and frequency referred to in clause 74(b) (manner and frequency in which exhaust from each such diesel engine is to be sampled and analysed by a licensed person).

Dated this 29th day of January 2007.

ROBERT REGAN
Chief Inspector
NSW Department of Primary Industries

Schedule

1.0 SPECIFIED LIMITS

1.1 Mine Atmosphere Limits

The maximum permissible diluted contents of the exhaust from a diesel engine, when measured in the mine atmosphere in accordance with 2.0 below, must not exceed those limits stipulated in *Table 1*.

Contaminant ⁽¹⁾	Time weighted average (TWA)		Short term exposure limit (STEL)	
	ppm	(%)	ppm	(%)
Carbon Monoxide (CO)	30	(0.003)	See note	
Nitric Oxide (NO)	25	(0.0025)	-	-
Nitrogen Dioxide (NO ₂)	3	(0.0003)	5	(0.0005)

Table 1 – Mine atmosphere exposure limits for diesel engine exhaust

Note: Refer to the hazardous substance information (HSIS) website (www.ascc.gov.au/ or www.nohsc.gov.au/applications/hsis) for guidance material in regards to short term carbon monoxide exposure.

1.2 Raw Exhaust Limits

The maximum permissible contents of the raw exhaust of an in-service diesel engine, when measured in accordance with clause 2.0 below, must not exceed:

- a) those limits stipulated in *Table 2* below, and
- b) 30% higher than the particular diesel engine baseline emissions for both CO and NO_x where the baseline emissions for both CO and NO_x is less than 500ppm, or
- c) 15% higher than the particular diesel engine baseline emissions for both CO and NO_x where the baseline emissions for both CO or NO_x is greater than 500ppm

Note: Points (b) and (c) above only apply to 'as new' diesel engines which are required to carry out a baseline test for item registration.

Contaminant	ppm	(%)
Carbon monoxide (CO)	1,100	(0.110)
Oxides of nitrogen (NO _x)	750	(0.075)
Nitrogen dioxide (NO ₂)	100	(0.01)

Table 2 – Diesel engine raw exhaust limit

Raw exhaust means diesel exhaust emissions (or fumes) that have not been affected by an exhaust conditioning system or catalytic converter and have not been diluted as part of a pollution control system.

2.0 MANNER AND FREQUENCY OF EXHAUST SAMPLING

The manner and frequency of diesel engine exhaust emission sampling must be in accordance with MDG29 DR070124, '*Guideline for the management of diesel engine pollutants in underground environments – DRAFT January 2007*'.

Any requirement to measure diesel particulate does not apply until the 1 July 2007.

A diesel exhaust testing laboratory is not required to hold a license until the 1st July 2007, provided the laboratory has National Association of Testing Authorities Australia (NATA) accreditation for diesel exhaust analysis and was carrying out such analysis prior to the date of this notice.

The following clauses of MDG29 DR070124 are to be considered to be part of this notice:

- a) SECTION 1 – '*PURPOSE AND SCOPE*'
 - (i) Clause 1.7, '*DEFINITIONS*'
 - Clause 1.7.1, '*As new*'
 - Clause 1.7.2, '*Competent person*'
 - Clause 1.7.4, '*Diesel particulate*'
 - Clause 1.7.5, '*Department*'
 - Clause, 1.7.7, '*Diesel test station (DTS)*'

- Clause 1.7.11, '*Heavy duty torque converter*'
 - Clause 1.7.12, '*Licensed laboratory*'
 - Clause 1.7.13, '*Load*'
 - Clause 1.7.15, '*Raw exhaust*'
 - Clause 1.7.16, '*Shall*'
'*Shall*' means '*mandatory*' for the purpose of this notice
 - Clause 1.7.20, '*Undiluted exhaust*'
- b) SECTION 5 – '*MONITORING OF DIESEL ENGINE POLLUTANTS*'
- (i) Clause 5.1, '*GENERAL*'
 - (ii) Clause 5.3 '*BASELINE TESTING FOR EACH 'AS NEW' DIESEL ENGINE SYSTEM*'
'*As new*' means an engine which is brand new or an engine which has been reconditioned
 - (iii) Clause 5.4 '*IN-SERVICE DIESEL ENGINE TESTING OF POLLUTANTS*'
 - (iv) Clause 5.5 '*WORKPLACE ATMOSPHERIC MONITORING OF DIESEL ENGINE POLLUTANTS*'
- c) SECTION 6 – '*TEST PROCEDURES*'
- (i) Clause 6.1, '*GENERAL*'
 - (ii) Clause 6.2, '*PROCEDURES FOR GASEOUS EMISSIONS*'
Gas type detector tubes may be used for mine site exhaust gas analysis until the 1st July 2007.
 - (iii) Clause 6.3.2, '*Procedures for monitoring diesel particulate emissions*'
- d) SECTION 7 – '*EXTERNAL AUDITS AND REPORTS*'
This section applies after the 1st July 2007.
- e) SECTION 8 – TESTING EQUIPMENT AND STANDARDS