

Q7. Do you support the proposed workplace exposure standard (WES) for diesel particulate matter (DPM) to protect workers from the adverse health effects of exposure to diesel engine emissions (DEE)?

Yes

Q8. What are your reasons for your response to Question 1? Please provide evidence or information to support your response.

All Australians should be able to work in an environment free from harm and Lung Foundation Australia supports the submission by Cancer Council regarding the recommendation to implement a health-based workplace exposure standard (WES) for diesel engine exhaust (DEE) at 10 µg REC/m³ (0.01 mg REC/m³).

Q9. Is there an alternative WES to DPM as respirable elemental carbon, or additional WES that should be considered to protect workers from DEE? Please provide evidence or information to support your response.

Furthermore, LFA supports the following recommendations: - that such a standard is applied to diesel particulate matter (DPM) from both new technology diesel engines (NTDE) and traditional diesel engines (TDE); - that the WES for DPM is to be applied in conjunction with the WES for other components of DEE, such as nitrogen dioxide, to ensure the risk of health effects from the mixture as a whole are adequately controlled; and, - for a 'Carcinogenicity Category 1A' notation for DPM given the weight of evidence from both human and animal studies indicating DEE is a lung carcinogen. In addition to the proposed WES, a person conducting business or undertaking (PCBUs) / employers should implement the Hierarchy of Controls to enable workers to reduce or manage their exposure to hazardous agents such as DEE. Following this Hierarchy will assist in the management of DEE exposure.

Q10. What changes would you need to make in your workplace (over and above any controls currently in place) to ensure workers and others at the workplace are not exposed to levels of DPM above the proposed WES? Please include in your response: i. a description of the control measures currently in place at your workplace(s) to minimise exposure of workers and others to DEE.ii. details of any costs to implement the WES for DPM (e.g., upgrade of ventilation systems in area X, costing approximately \$XXX).

Please refer to the attached submission

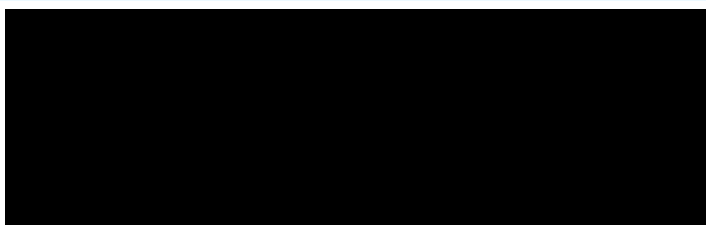
Q11. Is there additional evidence or information that you think should be considered?

Please refer to the attached submission

Q12. Are there any additional comments you would like to make?

Lastly, LFA strongly advocates for lung health, and we note the significant impacts of air pollution and the need to improve air quality. There is no safe level of air pollution and even exposure to small amounts of air pollution can cause health impacts as previously mentioned. The implementation of a WES for DPM will assist in the efforts to reduce air pollution.

Q13. Upload your submission here: (PDF,DOC or DOCX)



2 June 2023

Safe Work Australia
Submitted via: Online consultation hub

Dear Safe Work Australia,

Re: Consultation on a proposed Workplace Exposure Standard for diesel particulate matter – adoption of a health-based standard

All Australians should be able to work in an environment free from harm and Lung Foundation Australia supports the submission by Cancer Council regarding the recommendation to implement a health-based workplace exposure standard (WES) for diesel engine exhaust (DEE) at **10 µg REC/m³ (0.01 mg REC/m³)**.

About us

Lung Foundation Australia (LFA) is the only national charity and leading peak-body dedicated to supporting anyone with a lung disease including lung cancer. For over 31 years we have been the trusted national point-of-call for patients, their families, carers, health professionals and the general community on lung health. There are over 30 different types of lung disease currently impacting 1 in 3 Australians. Our mission is to improve lung health and reduce the impact of lung disease for all Australians. We will continue working to ensure lung health is a priority for all, from promoting lung health and early diagnosis, advocating for policy change and research investment, raising awareness about the symptoms and prevalence of lung disease, and championing equitable access to treatment and care.

Health impacts of DEE

We strongly support and commend Safe Work Australia for this work as DEE is listed as one of the 38 priority carcinogens relevant to working conditions in Australia as noted by Cancer Councilⁱ. DEE is known to cause lung cancer and current data suggested that approximately 1.2 million Australian workers are exposure to this with an estimated 4,450 lung cancer cases will be developed over the lifetime attributed to DEEⁱⁱ. In Australia, DEE is the second most common carcinogen workers are exposed to and each year approximately 130 Australians are diagnosed with lung cancer caused by work-related exposure to DEE.ⁱⁱⁱ

Research estimates that in 2011 (latest figures) 1.2 million Australian workers were exposed to disease exhaust in the workplace with acute and long-term exposure having a negative impact on the worker's health and wellbeing^{iv}. It is well reported that workers who are exposed to high levels of diesel engine exhaust (DEE) have an increased risk of lung function decline and increased airway resistance^v.

Recommendations

LFA supports Cancer Council's recommendation that a WES level of **10 µg REC/m³ (0.01 mg REC/m³)** would be reasonable to set until more definitive information is available (should that additional information be considered relevant). This is vital to adequately protect Australian workers in critical industries from an elevated risk of developing DEE-related lung disease, specifically lung cancer.

Furthermore, LFA supports the following recommendations:

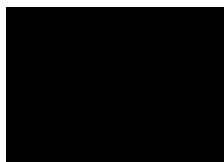
- that such a standard is applied to diesel particulate matter (DPM) from both new technology diesel engines (NTDE) and traditional diesel engines (TDE);
- that the WES for DPM is to be applied in conjunction with the WES for other components of DEE, such as nitrogen dioxide, to ensure the risk of health effects from the mixture as a whole are adequately controlled; and,
- for a 'Carcinogenicity Category 1A' notation for DPM given the weight of evidence from both human and animal studies indicating DEE is a lung carcinogen.

In addition to the proposed WES, a person conducting business or undertaking (PCBUs) / employers should implement the Hierarchy of Controls to enable workers to reduce or manage their exposure to hazardous agents such as DEE. Following this Hierarchy will assist in the management of DEE exposure.

Lastly, LFA strongly advocates for lung health, and we note the significant impacts of air pollution and the need to improve air quality. There is no safe level of air pollution and even exposure to small amounts of air pollution can cause health impacts^{vi} as previously mentioned. The implementation of a WES for DPM will assist in the efforts to reduce air pollution.

LFA commends Safe Work Australia in undertaking this consultation to protect Australian workers and urge immediate implementation of the WES for diesel particulate matter. Like Cancer Council, we support the implementation of a health-based WES for diesel particulate matter (as measured by respirable elemental carbon) that is adopted across all Australian jurisdictions and relevant industries. We need to do more to protect our workers from avoidable health issues. Thank you for the opportunity to provide feedback in this consultation. If you would like to discuss this matter further, please contact Paige Preston, Senior Manager of Policy and Advocacy at paigep@lungfoundation.com.au.

Yours sincerely,



Mark Brooke

Chief Executive Officer

Lung Foundation Australia

cc: Dr Matthew Govorko, Cancer Council Australia

ⁱ Fernandez RC, Driscoll TR, Glass DC, Vallance D, Reid A, Benke G, et al. A priority list of occupational carcinogenic agents for preventative action in Australia. *Aust N Z J Public Health*. 2012;36(2):111-5.

ⁱⁱ Carey RN, Fritschi L, Driscoll TR, et al. Interventions to Reduce Future Cancer Incidence from Diesel Engine Exhaust: What Might Work? *Cancer Prev Res (Phila)*. 2019;12(1):13-20. doi:10.1158/1940-6207.CAPR-18-0274

ⁱⁱⁱ Cancer Council Australia. Diesel fumes at work cause 130 lung cancer cases every year: Cancer Council Australia; 2017. Available from: <https://www.cancer.org.au/media-releases/2017/diesel-fumes-at-work-cause-130-lung-cancer-cases-every-year>

^{iv} SafeWork Australia. 2015. *Guide to managing the risks of exposure to diesel exhaust in the workplace*. Available at: <https://www.safeworkaustralia.gov.au/system/files/documents/1702/guidance-managing-risks-exposure-diesel-exhaust-in-the-workplace.pdf>

^v Ibid

^{vi} Victoria Government. *Estimating the health costs of air pollution in Victoria*. Available at: https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0022/421717/Final_Health-costs-of-air-pollution-in-Victoria.pdf