

7 February 2019

Ministry for Transport
MARPOL Annex VI submission
PO Box 3175
Wellington 6140

MARPOL Annex VI: Prevention of Air Pollution from Ships

Tēnā koutou,

In response to the Ministry of Transport discussion document seeking feedback on New Zealand's potential accession to the International Maritime Organization treaty: MARPOL Annex VI: Prevention of Air Pollution from Ships, the Canterbury District Health Board (CDHB) recommends that New Zealand accedes to Annex VI; with public and environmental health issues carefully considered.

The key public health impacts arising from air emissions from shipping are:

- (i) Direct effects from harmful emissions; and
- (ii) Effects from climate change caused by greenhouse gas emissions

Effects associated with harmful air emissions¹

Harmful air pollutants are so-called because they can cause adverse human health effects. The effects of harmful air pollutants depend on the:

- Composition of the pollutant mixture;
- Level and duration of exposure; and
- Factors related to the sensitivity of the exposed population (such as age, ethnicity and pre-existing medical conditions).

Effects can range from minor nuisance to serious adverse effects or harm and be short-term (acute) or long-term (chronic). This document focusses primarily on pollutants that can cause serious adverse health effects.

It is well documented that exposure to air pollution may lead to adverse health effects, such as increased morbidity (illness) and premature death.

¹ Excerpt from: Emission Impossible (2019). *MARPOL Annex VI: Air quality, climate change and health issues for New Zealand*. p. 23.

Affected ships have three options to meet the new sulphur fuel limits²:

- (i) Switch to low sulphur fuels (0.5 % fuel oil or New Zealand automotive diesel);
- (ii) Install abatement technology; and/or
- (iii) Upgrade to newer, more fuel efficient, ships.

Each of these options have costs, and benefits, for their owners as well as for New Zealand.

The CDHB's view is that having these options allows for shipping companies to choose what is most practical for them to achieve compliance with the new standards under Annex VI and will likely achieve the outcome of reduced emissions. There are conflicting reports of the numbers of ships affected but it is understood that the majority of international freight ships are registered with countries that have already acceded to Annex VI and would not require any additional modifications to comply.

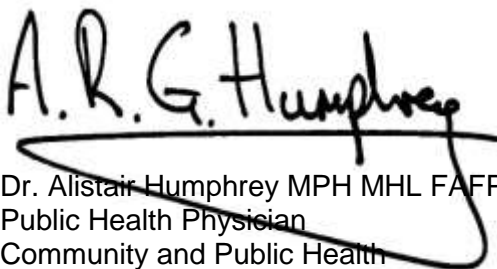
Benefits for Coastal Occupants, Visitors and Workers

New Zealand has several major cities that are located in coastal regions, with associated ports located close by. Of particular interest to the CDHB is Lyttelton Port and Timaru Port. The reduction in sulphur content in fuels will have a benefit for residents of these coastal towns and cities as well as commuters and workers who may be exposed to these emissions over the course of their travels and workdays.

Summary

Based on the information that has been provided to us, the CDHB's view is that provided there are practical methods for shipping companies to modify their vessels in order to comply with Annex VI, there are many public and environmental health benefits from reduce sulphur content in maritime fuels.

Ngā mihi,

A handwritten signature in black ink that reads "A. R. G. Humphrey". The signature is written in a cursive style with a large, sweeping underline that extends across the text below.

Dr. Alistair Humphrey MPH MHL FAFPHM FRACGP
Public Health Physician
Community and Public Health
Canterbury District Health Board

² Excerpt from: Emission Impossible (2019). *MARPOL Annex VI: Air quality, climate change and health issues for New Zealand*. p. 9.