

Atmos. Chem. Phys. Discuss., referee comment RC2
<https://doi.org/10.5194/acp-2020-1274-RC2>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.

Comment on acp-2020-1274

Anonymous Referee #2

Referee comment on "Projections of shipping emissions and the related impact on air pollution and human health in the Nordic region" by Camilla Geels et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2020-1274-RC2>, 2021

Atmospheric Chemistry and Physics

ACP-2020-1274

Projections of shipping emissions and the related impact on air pollution and human health in the Nordic region

GENERAL COMMENTS

The manuscript reports a study that mainly aimed to predict shipping emissions and evaluate their impact on air quality over the Nordic, including the Arctic area, as well as to assess the health impact. The study is very interesting on a very important topic and is well written. Overall, the methodology was well performed. Nevertheless, there are some revisions that I recommend to be performed before publication.

SPECIFIC COMMENTS

1. Introduction

1.1 In the objective there is reference to "...assess the overall impact...". What does this mean? I mortality and morbidity going to be assessed?

2. Materials and methods

2.1 The figure with the study area domains should appear in the section that refers to the DEHM model, and no text should be between the section "2. Materials and methods" and the sub-section "2.1 Setup of shipping emissions inventory"

2.2 Please comment on the likelihood of the future scenarios presented.

3. Results

3.1 There is a very high amount of figures/tables in the main text. Please consider putting some in supplementary material (for example emission factors don't need to be in the main text; table 2 has the same results as figure 5, one should be chosen;).

3.2 In figures 7, 8, 10, 12 there are no legends in the axes. Maybe the figures related to health effects could be aggregated in a table where the several scenarios could be more easily compared.

3.3 Are the EEA estimates for exposure due to shipping emissions?

4. Discussion

4.1 This section should include a subsection with the uncertainties related to all the estimations performed.