

## Additional comments on acp-2015-506 (Editor)

Major concern: Authors are now attributing PM changes to “PM deposition on the wall” of the sampling tube (page 15 middle). This is basically an admission that the PM was incorrectly measured and the emission factor is low. If transmission efficiency is poor enough to affect relative emission factors, then the results cannot be used. Transmission efficiency should be measured or characterized in the sampling system.

Major concern: Reviewer and editor requested more context, in comparison with other studies. Authors added text on page 18, as well as Table S7. Authors also provided additional entries in Table 4. However, I think that authors have misunderstood the request for context. It is less interesting to compare ships with other types of diesel engines and I think the Table S7 and the text describing it are not necessary. The issue of interest is how emissions vary for different types of **\*\*ship\*\*** engines. The table 4 in the MS is getting to this point. It could include the type of fuel, sulfur content (if known) and engine size for each study. One could then compare how the Chinese ships are different for similar engine types and situations. Or, if similar engine types were not measured in other studies, this table would then show how the current work fills gaps in the measurement database.

Grammatical comments: “Composition” and “matter” are used in English as singular, not plural. That is, one always says “composition” and never “compositions.” Please search your document for this usage.

Page 6: Authors have addressed the opinion of Reviewer 2 to provide more discussion about regulations. However, English is poor in the added text. I have provided an edit below.

*But because of the serious air pollution these years in China, emission limits for the main sources such as vehicle exhaust, coal combustion, biomass combustion and fugitive dust have become more and more stringent. A draft aimed to limit the emissions from marine engines set by Ministry of Environmental Protection (CHINA I, II), is on soliciting opinions. It has set the limits of CO, HC, NO<sub>x</sub> and PM for different kinds of vessels, which are mainly based on the Directive 97/68/EC set by EU and 40 CFR part 1042 set by EPA. In addition, an implementation plan has been released by the Ministry of Transport of the People’s Republic of China in December 2015 aiming to set shipping emission control areas to reduce SO<sub>2</sub> emissions in China (Ministry of Transport of the People’s Republic of China, 2015). All the regulations were set based on other directives and regulations. Detailed measurement data in China will assist with further policy making more appropriate to current situations of vessels.*

Page 8 Line 16: “account” should be “accounting”

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Comment [1]: Name is not needed and makes the text awkward.

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Comment [2]: I don't think you can make the original statement—that the measurement data are in urgent need for policy making. Directives can be set without measurements.

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Page 15 line 30: Non-dilution sampling: You do not know that this is the main reason for lower OC to EC. You can only say that non-dilution sampling would give lower estimates of OC to EC. I suggest this statement should be revised.