

***Interactive comment on* “Black carbon from ships: a review of the effects of ship speed, fuel quality and exhaust gas scrubbing” by D. A. Lack and J. J. Corbett**

Anonymous Referee #1

Received and published: 13 March 2012

The paper does an excellent job of compiling and comparing previously published data on factors that determine BC emission factors for marine vessels. It should be published in ACP as it provides a very timely review on what is known about the impacts of ship speed, fuel quality, and exhaust scrubbing on emissions of BC. The paper is well written and the data are clearly presented. I have only the few, very minor comments listed below.

p. 3513, line 12: Should this be “catalyze FORMATION of BC” and not COMBUSTION?

p. 3515, lines 11 – 15: Clarify what is meant by “almost all techniques mentioned vary for ship engine exhaust measurement”. Does this mean the different methods show

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poor agreement or yield different results for ship exhaust?

p. 3516, line 24: A brief description of the “ISO-8178 standard” should be provided.

p. 3517, line 6: change to “. . . indicates that the mass absorption coefficient used, 7.5 m²/g, is generally valid. . . .”

p. 3522, line 18: Describe/define “speed proportional to load relationship” upon first use.

p. 3524, line 22: Change to “. . . on BC EMISSIONS is more complex. . . .”

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 3509, 2012.

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