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## ***Interactive comment on “Emissions factors for gaseous and particulate pollutants from offshore diesel engine vessels in China” by F. Zhang et al.***

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Received and published: 22 October 2015

Due to the differences of engine type, fuel and vessel type between Chinese vessels and other countries, the emission factors of pollutants from vessels also vary significantly. Therefore, the EFs data from other countries can't be used directly on calculation of shipping emission inventory in China or contribution of shipping emissions to environmental air. Besides, the establishment of emissions stands of vessels in China also needs the support of data based on measurement.

In this study, on-board test of three offshore vessels (including one engineering vessel and two research vessels) in China had been carried out for the first time. Emission factors for gaseous species, PM and relevant chemical components (OC, EC, metal

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elements and water soluble ions) in different operating modes are given which means a lot for estimating contribution of ships to atmosphere and calculating emission inventories of ships. Besides, impacts of engine speed on NO<sub>x</sub> emission factors also have been discussed for the first time.

We are focusing on on-board measurement of pollutants from different vessels, and also the impact factors on their emissions. Though only three offshore vessels' data were reported in this study, they were typical offshore diesel vessels that could represent the emission conditions from a low level to a relative high level in China, which are imperative. We believe these data will provide some interesting information not only for research but also for policy. Besides, measurement of two fishing boats have already been finished, and in the near future, cargo vessels and passenger ships with heavy fuel will be tested to give more detailed emission factors in China.

We recommend this paper to be received and published.

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Interactive comment on Atmos. Chem. Phys. Discuss., 15, 23507, 2015.

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