

Interactive comment on “A high-resolution regional emission inventory of atmospheric mercury and its comparison with multi-scale inventories: a case study of Jiangsu, China” by Hui Zhong et al.

Anonymous Referee #2

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In this study, the authors developed a high-resolution Hg emission inventory of anthropogenic origin for 2010. The provincial inventory was compared to selected global and national inventories. Discrepancies in emission levels, speciation, and spatial distributions are evaluated. The major contribution of the study is comparison of the inventories, and identifying the effects of different approaches and data on developing the inventories.

The study is relevant since there are considerable information gaps between multi-scale inventories. The differences attribute mainly to the data of different sources and

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levels of details. A bottom-up approach used in this study could help improve the precision of the inventory.

A key question is, the authors indicated that part of the data are internal data from Environmental Protection Agency of Jiangsu Province, and the internal industry reports. We would like to see more explanations on these “internal data”.

Line 78, “there are currently very few studies focusing on Hg at regional/local scales”. This is not true.

Line 128-131, could you provide more information on the PSC? Any difference between PSC and published statistical data?

Line 180, please explain the internal industry reports.

It would be interesting if at the end of the manuscript, the authors might give some discussions on the possibility of overall underestimation of mercury inventory for China, not just for the province. That is to say, the same problems in other national inventories might happen in other provinces in China.

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