

Interactive comment on “Uncertainties in estimating mercury emissions from coal-fired power plants in China” by Y. Wu et al.

Anonymous Referee #2

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This manuscript estimates uncertainties of Hg emission from coal fired power plant sector in China in 2003. The authors found that mercury concentrations in coal and Hg removal efficiency in combustion processes. The findings are so obvious and are important. This manuscript should be published with minor revision.

The authors should comment on the current activities and outcome from mercury measurements in coal fired power plants carried out in a few groups in China. Moreover, the authors should comment also if current available measurement data from coal fired power plants in China reduce the uncertainties in some way or not.

Line 15-17, page 23567 The authors mentioned that "High concentrations of Hg in air of China's cities have also been reported in several studies. The author should mention that Hg concentrations in ambient air in remote areas in China also show high levels

and the following papers should be referred. 1) Fu X., Feng X*, Dong Z., Yin R., Wang J., Yang Z., Zhang H., Atmospheric total gaseous mercury (TGM) concentrations and wet and dry deposition of mercury at a high-altitude mountain peak in south China. Atmospheric Chemistry and Physics, 2010 (this issue) 2)Wan Q., Feng X*, Lu J., Zheng W., Song X., Han S., Xu H., Atmospheric mercury in Changbai Mountain area, north-eastern China I. The seasonal distribution pattern of total gaseous mercury and its potential sources. Environmental Research, 2009, 109:201-206. 3)Fu X., Feng X*, Zhu W., Temporal and spatial distributions of TGM in Gongga mountain area, Sichuan province, P.R. China: Regional sources and long range atmospheric transport. Science of the Total Environment, 2009, 407:2306-2314.

Line 4-5, page 23573 The authors stated that "The key finding is that the share of Hg0 to total Hg in Chinese boilers is much higher than that found in US boilers". Can the authors provide any measurement data to support this?

Reference Ni et al., 1998 should be changed to Feng et al., 2002 which was published in an international journal and easily reached by our international colleagues.

Feng X, Sommar J, Lindqvist O, Hong Y. Occurrence, emissions and deposition of mercury during coal combustion in the province Guizhou, China. Water, Air and Soil Pollution, 2002, 139:311-324.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 23565, 2009.

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