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Interactive comment on "Effect of sporadic destratification, seasonal overturn and artificial mixing on CH_4 emissions at the surface of a subtropical hydroelectric reservoir (Nam Theun 2 Reservoir, Lao PDR)" *by* F. Guérin et al.

Anonymous Referee #3

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Inland waters are gradually regarded as a great methane source, especially for hydroelectric reservoirs or lakes. This MS deals with this interesting topic in recent years. Moreover, their data is especially needed in Asia for its very limited database about methane from lakes or reservoirs. The importance of the manuscript is that this study is a pilot one to report a new hotspot of methane emissions in upstream of the water intake as well as hot moments of emissions during sporadic destratification and reservoir overturn based on data from multiple sites during three-year monitoring.
</br> Although the authors have done a good job in data collecting, study design, data analy-

ses and writing, I still have some minor concern about the MS in its discussion section. Firstly, authors did not compare their results comprehensively with other studies all over the world. E.g., the diffusive emission from the surface was high or low? Did your results were fallen in the range of emission rates from other studies? The possible reason? Secondly, for the hotspots, as we know, turbine and water-logged drawdown areas are regarded as the hotspots of hydroelectric reservoirs. Please give some comparisons with their contribution to the total emission with inflow waters' and highlight how important about this hotspot from the inflow water.

Interactive comment on Biogeosciences Discuss., 12, 11349, 2015.