

Interactive comment on “Regional differences in Chinese SO₂ emission control efficiency and policy implications” by Q. Q. Zhang et al.

Anonymous Referee #2

Received and published: 3 April 2015

1. SO₂ control will accompany with the change of NO_x and hydrocarbons emissions which can induce the O₃, OH and H₂O₂ variation. This would lead to gas phase and aqueous oxidation process of SO₂. The uncertainty analysis should be done to consider these processes. 2. In Page 14, the authors analyzed SO₂ conversion and emphasized that the aqueous oxidation is very important process. However in page 15, the results showed that all three regions, the relative decrease of gas phase oxidation is greater than that of aqueous oxidation, more explanations should be given to this point. 3. More detailed information should be added to describe how to calculate the sulfur outflow flux. Some references should be cited to show the Winter and Spring are the significant seasons for pollutants export. 4. Why SO₂ concentration is not one of the impact metrics?

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Interactive comment on Atmos. Chem. Phys. Discuss., 15, 4083, 2015.

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