

## ***Interactive comment on “The 2013 severe haze over the southern Hebei, China: model evaluation, source apportionment, and policy implications” by L. T. Wang et al.***

**Anonymous Referee #2**

Received and published: 24 December 2013

In this work, Wang et al. first analyzed the haze frequencies in seven heavily polluted cities in the northern China during 2001–2013. The most severe haze event occurred in January 2013 was identified and was further simulated by a carefully evaluated MM5-CMAQ chemical transport model with the updated MEIC inventory. The source contributions by region and by sector to the PM<sub>2.5</sub> concentrations in three top polluted cities in the southern Hebei Province of China were presented for the first time, and the results are valuable to policy makers in controlling China's severe haze pollution. Generally, the method and simulation procedure are appropriate and clearly described. The manuscript is well organized and well written, although there are some

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grammatical errors in the manuscript. The reviewer would recommend the manuscript for publication in Atmospheric Chemistry and Physics after minor comments below are addressed.

Technical Corrections:

Page 28397, line 15–16 and line 18–19. References are needed for these sentences.

Page 28397, line 19. Change “for” to “in”.

Page 29398, line 12. Typo, “southeast” to “southeast”.

Page 29398, line 29. Typo, “southeast” to “southeast”.

Page 28399, line 1. Add “the” before “3rd”.

Page 28399, line 2. Add “the” before “5th”. Add reference “(NBS, 2012a)”. Change “top one” to “biggest”.

Page 28399, line 4. Add reference “(NBS, 2012a, b)”. Change the second “China” to “China's”.

Page 28400, line 2. Change “exist” to “are”.

Page 28400, line 4. Change “its” to “their”.

Page 28403, line 29. Add a comma after “PM<sub>10</sub>”.

Page 28404, line 15. Change “they” to “and it”.

Page 28406, line 2. Add “are” after “and”.

Page 28407, line 11. Typo, “Feberury” to “February”. Change “Feberury 28” to “28 February”.

Page 28407, line 19. Typo, “Febuary” to “February”.

Page 28408, line 6. Add a comma after “Zhengzhou”.

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Page 28408, line 21. Change “the average visibilities of the three 1 month episodes” to “the average monthly visibilities”.

Page 28409, line 8. Change “increased” to “increasing”.

Page 28413, line 7. Add a comma after “-7.4%”.

Page 28427, line 21. Remove “to”. Change “in” to “of”.

Page 28427, line 23. Remove “to”.

Caption of Table 5. Add a comma after “Xingtai”.

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Interactive comment on Atmos. Chem. Phys. Discuss., 13, 28395, 2013.