

Interactive comment on “Assessment of Air Pollution in Bangkok Metropolitan Region, Thailand” by Pornpan Uttamang et al.

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I have finished my review of this proposed paper. Overall, the article is well written and examines the interaction of Ozone with NO_x regime. The analysis was well done. However, some of the text needs either clarification or at least additional discussion. Below please find my specific comments.

1. In line 12, the statement is made, "On average, the number of hourly O₃ exceedences ranged from 1 - 60 hours a year." This line is confusing. The overall average should be a value, not a range. If you wish to express it as a range, then do it by year, such as 2010 that average was XX hours, 2011, the average was XX hours. This range of 1-60 hours makes no sense.

C1

2. When you express a range (this applies throughout, do not mix the units and values. In Section 2, Methodology line 12 you state the temperature is (~35C - 40C). This appears to read that it ranges from 35 degrees to - (minus) 40 degrees. Do this instead: (35 - 40 C).

3. Same section line 21, it states, " It is assumed that the monitoring sites used were representative of BMR specific patterns and trends." I think it goes without stating this that the professionals at the PCD would have done this and this does not need to be stated, but you would hope you would infer this. Remove this statement.

4. Same section, line 27 -29, you list the sites (19T, 20T, etc...) which mean absolutely nothing to the reader then you state in line 29 that the figure shows these. The statement that mentions the figure should be the first line to the paragraph, not the last line. Move this line to the front so the reader can go get the figure look at it while you read the information.

5. Section 2.2, line 2 you mention wind speed and direction. Is this average or vector data? Please state. This is important when calculating direction from which winds are blowing.

6. Same section, line 10, it is mentioned that equipment and monitoring station are calibrated every year. This is vague and could cast a shadow on validity of data. does this mean that this is done only once per year? Pollution instruments and met, or only met instruments. I am sure the PCD does calibrations more often than once annually. Please clarify this statement.

7. In Section 3.3 line 24, you use the term "atmospheric boundary layer." Is this the same as planetary boundary layer that was used previously? If it is the same term, then be consistent. If it isn't then please explain what this term means on how it differs from the PBL.

8. Page 8, line 11, Please explain why the ratios of NO₂ and NO show significant

C2

difference. You make the statement but you don't say why. this is an important claim that you make in this paper/

9. Page 9, line 9, you state, "In conclusion, the titration of O₃ and NO is perhaps one of the most important processes..." Please elaborate about why this is so important.

Page 11, line 5, you state, "However, a negative delta O₃ may be negative. However, it appears that the data doesn't support this in the paragraph. Why is this statement made?"

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