Reviewer’s report

Title: Peak Event Analysis: A Novel Empirical Method for the Evaluation of Elevated Particulate Events

Version: 1  Date: 22 June 2013

Reviewer: Shen Zhenxing

Reviewer’s report:

This paper addressed a novel method to measure PM (TSP/PM10/PM2.5/PM1) data during episodes in rural sites in Canada. I recommend publishing this paper in journal after considering the following comments.

1) The conclusion in abstract should address the analysis results in this study.
2) In background section, authors should give a general review on the PM data evaluation methods to highlight the purpose of this study.
3) Figure 2 about variation of TSP and PM10 in August 2012 was confused. The left Y-axis (log) and right Y-axis (normal) showed the different scales, but how to identify which one is TSP or PM10.
4) The characteristics of the novel method mentioned in this paper should be addressed more clearly.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.