Reviewer’s report

Title: Breath acidification in adolescent runners exposed to atmospheric pollution: a prospective, repeated measures observational study

Version: 1 Date: 26 September 2007

Reviewer: Paul Boyce

Reviewer’s report:

General
Overall the study was well thought out. The aim was clearly defined, methods were sound, and analyses were robust. I was particularly impressed that the statistical efforts were approached from several angles to confirm the Null Hypothesis. This also included efforts to confirm the contradictory results that were obtained from the sampling. The discussion was also well written and in fact well addressed the limitations noted in the study.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached) Although I understand that each subject acted as their own control, I am question why they did not have a separate control group of non-runners (students, not CDC employees). Also please address why the analysis did not control for sprinters as they had significantly lower EBC pH.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Please define ETS, what it stands for. In Table 3 & 4, please widen the tables so that Ref stays on the appropriate line.

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Discretionary Revisions (which the author can choose to ignore)

It would have also been interesting to note if there were any effect on PFTs.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.