Reviewer's report

**Title:** Meteorologically estimated exposure but not distance predicts asthma symptoms in schoolchildren in the environs of a petrochemical refinery

**Version:** 1 **Date:** 17 February 2009

**Reviewer:** Nilsa I Loyo-Berrios

**Reviewer's report:**

Major Compulsory Revisions

1. There is need for discussion on the cross-sectional nature of the study and how it limits the interpretation of the study results.

2. Children spend most of the time at school. A discussion as to why residence was used instead of school location is also needed.

3. A high proportion of smoking is reported among adults (64.2%) and among the kids themselves (53.8%). Was the prevalence of smoking in the comparison area as high? Paper needs to include more detailed discussion as to how smoking prevalence, not only among adults in the households, but also among the kids, affect the study results.

4. Authors state it was not possible to measure pollutants for the study, yet later on include in the discussion air pollution data (SO2 and PM) from a station nearby the refinery. Why were these data (actual measurements of pollutants) not included in the analysis?

5. A statement of public health practice is needed. They conclude the study provide evidence that correlates the exposure measure with the outcome, yet no recommendations as to what should be done to protect the children from having recurrent symptoms is not provided.

Minor Essential Revisions

There are several typos that need to be corrected.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
No competing interests to declare.