Reviewer’s report

Title: Lung cancer mortality in towns near paper, pulp and board industries in Spain

Version: 4 Date: 9 July 2008

Reviewer: Denis Zmirou-Navier

Reviewer’s report:

The paper has been substantially modified and improved following the reviewers’ comments. In particular, what appeared in the first version as an over-interpretation of the findings for two plants out of the 18 that were studied is now much more prudent. The paper refocused its objective so as to underline the advantages of the EPER/PRTR data base for exploratory analysis of the possible health impacts of industrial emissions. It also stresses some serious limitations in the data. This new focus is appropriate.

Minor Essential Revisions

Two comments made in the initial review remain valid, however. One stated that “surprisingly, no reference is made to traffic-related emissions as a possible contributor to the risk of lung cancer in urban areas.” Given the mounting evidence of the association between lung cancer incidence and exposure to traffic emissions, that the paper, in this revised version, not even alludes to this area of research is indeed surprising.

The second relates to the ascription of the risk of lung cancer to SO2. The least the authors should do is to state that SO2 is, in the paper and board industries, a fair indicator of general airborne emissions, rather than the suspected carcinogenic agent. As it is now written in the paper, this ascription – should the statistical association between lung cancer and the proximity of the two plants be causal - is clearly an over interpretation of the findings. It is inappropriate to refer to SO2 as “a compound with one of the highest emissions” to back this idea. Comparative mass emissions are not a relevant indicator of relative hazardous potency (otherwise, why bother about dioxins, for example ?).

Discretionary Revisions

Page 8 (end of 3rd §): “Another possible idea about the gender differences in lung cancer could be that pollutants in ambient air in connection with smoking could be the responsible. » The meaning of this sentence is unclear.

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

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests’