Reviewer's report

Title: Health Risks among Nonsmoking Residents Exposed to Benzene Following a Flaring Incident at the British Petroleum Plant in Texas City

Version: 2  Date: 4 September 2014

Reviewer: Nam Nguyen

Reviewer's report:

The authors provide an excellent report of the metabolic changes (complete blood count, liver and kidney profile) observed among non-smoking subjects exposed to Benzene. However, it was unclear whether lab testing was repeated among subjects with metabolic dysfunction to determine whether these changes were persistent with long-term follow-up. I suggest to modify the title to (for example): acute metabolic changes observed among non-smoker exposed to Benzene following a refinery accident. Health risks imply that the damage was permanent and requires long-term follow-up.

Please describe how the subjects who were exposed to Benzene should be followed to assess long-term damage to the bone marrow, liver, kidney and second malignancy in the discussion. Longitudinal data is required to determine whether these metabolic changes are transient or permanent. If they are permanent, should individuals who develop permanent liver dysfunction undergo more testing such as liver biopsy for example. The authors would provide valuable service to the community exposed to future accidents

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:

I declare that I have no competing interests