



SDI Review Form 1.6

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_55537
Title of the Manuscript:	Emission from Uyo Main Refuse Dumpsite and Potential Impact on Health
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link: (<http://www.sciencedomain.org/page/sdi-general-editorial-policy>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>Include a few more current references</p> <p>METHODOLOGY When did sampling taken place? (mention is made of three points, but not when (duration of sampling, duration of study). This determines if the study is adequate and provides representative data for the landfill studied. Please state the equipment used. Data quality is a critical factor in evaluating any analytical research paper.</p> <p>RESULTS AND DISCUSSION</p> <p>Quantify margin of error eg. mean \pm SD/SE</p> <p>People with cardio-vascular disease have a higher risk of mortality when levels of air pollutants are high (several of them have this effect, eg. PM_{2.5}, ozone, nitrogen dioxide, CO, SO₂), not just CO as mentioned</p> <p>Concentrations of 20-30 ppb cause irritation of the eyes, induce asthma and cause respiratory distress. Levels measured in this study were 100-200 ppb (0.1-0.2 ppm). Comparisons to other public health standards eg. WHO may be useful in interpreting the severity of health impacts. References are needed.</p> <p>Avoid using inclusion of pollutant parameters from the USEPA AQI list as an exclusionary listing of ambient air pollutants. The USEPA recognises a great many air pollutants. Inclusion in the AQI for US measuring sites is done for completeness of data coverage and ease of measurement, not because the pollutant lacks impact.</p> <p>Paper is quite general.</p>	
Minor REVISION comments	<p>ABSTRACT:</p> <p>I. 2- "Uyo local government area of Akwa Ibom State, Nigeria"- include a cardinal direction eg. 'northern or central' Nigeria or a GPS coordinate to aid the international reader</p> <p>I.3- 'particular' – change to particulate</p> <p>I.6 - expressed in terms of an air quality index</p> <p>I.6-9- "Air quality index indicates that the ambient air can be described as unhealthy for sensitive groups for NO₂, unhealthy for SO₂ and PM_{2.5}, and moderate for CO, respectively. H₂S, NH₃, TVOC, HCN, PM₁₀ were not indicated in USEPA air quality standards." Awkward phrasing. Did you mean "Current USEPA AQI is calculated for only a few pollutant parameters, each parameter rated independently, and does not consider other important parameters such as ..."...</p> <p>INTRODUCTION:</p> <p>I.3- "due to precarious conservation of municipal solid.." -replace 'conservation' with 'storage', (same comment for I.8)</p>	



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	<p>Para. 2- reference is made to the literature regarding environmental impacts and human health effects, however, only one reference is included. Can include some more local or more prominent international references here.</p> <p>I. 23-24- “Moreover, poisonous emission emitted..”, - in the context it’s used, maybe replace ‘poisonous’ with ‘noxious’. The list of pollutants should be re-ordered to list the pollutants by name, then illnesses that can result from exposure to high air pollution levels</p> <p>I. 26-29- awkward sentence construction. Maybe start with ‘Studies indicate higher incidence of cancer, asthma, cardio-vascular disease..’ and include references as appropriate. The listing of common disease causing bacteria is found as microbial clusters in ambient air near municipal waste disposal sites?- unsure what the author meant</p> <p>TAB 1- Title includes ‘...Noise Measuring Instruments ...’- requires harmonising</p> <p>TAB 2 & 3- This is not the author’s own work but rather has been taken almost entirely from the USEPA’s AIRNOW website</p>	
<p>Optional/General comments</p>	<p>Read and review the entire manuscript for language and awkward phrasing. Eg. solid waste is not ‘conserved’ in a landfill per se.. a better verb would be ‘stored’ or ‘comingled’ with in situ incineration...</p> <p>I. 35-36- Awkward sentence construction. Did you mean that this study used the USEPA AQI scheme to assess the air quality over the local landfill area to determine the severity of the public health risk posed by the landfill emissions?</p> <p>RESULTS AND DISCUSSION</p> <p>Para 10- “Both fine and coarse particles can accumulate” define fine (is it PM2.5) and coarse (is it PM10?)</p> <p>VOCs refer to an expansive group of chemicals with highly varying chemical characteristics and human health impacts.</p> <p>There is no real discussion of using an AQI index. Rather the paper interprets the readings taken from the study in the context of the USEPA’s AQI.</p>	

PART 2:

	Reviewer’s comment	Author’s comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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